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# THE BRITISH TACHINIDAE OF WALKER AND STEPHENS (DIPTERA)

# By R. W. CROSSKEY

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#### SYNOPSIS

The results are presented of an investigation into the long-neglected names that Walker and Stephens proposed for British Tachinidae or British species ascribed to Tachinid genera. The identities of the species to which the names apply are established after study of the extant types: types are lost of nearly half of Walker's British nominal species and 56 names remain nomina dubia. Nineteen previously established specific synonyms are confirmed, 49 new specific synonyms are established, and there are four new combinations. Lectotypes are designated for 13 nominal species, three of Walker and ten of Fallén (the latter being senior synonyms of Walker names). The generic name Triarthria Stephens is shown to be available and is established as a senior synonym for Bigonicheta Rondani; two other generic names are placed as new synonyms of Triarthria.

#### INTRODUCTION

It is a fact of taxonomic life that to ignore names does not make them go away, yet it has been the practice among British dipterists – it seems almost wilfully – to neglect the names proposed for British flies by Walker and Stephens. To disregard

the names of Stephens was perhaps permissible as they were almost all nomina nuda, but Walker's names were accompanied by detailed (albeit fairly useless) descriptions, and, furthermore, were nearly all published in the easily accessible work entitled Insecta Britannica, Diptera (volumes 1–3). Earlier generations of dipterists can therefore hardly have the excuse that they did not know of Walker's work.

Neglect of Walker's British Tachinidae has been almost total, despite the fact that they muster (including those described in *Tachina* Meigen but known not to be true Tachinidae) no fewer than 117 nominal species. None of the specialists on British Tachinidae (Wainwright, Day, van Emden) mentioned any of Walker's species or placed any of his names, and regrettably they were all omitted by Kloet & Hincks (1945) from their *A Check List of British Insects*.

The preparation of the Diptera volume for the revised edition of 'Kloet & Hincks' has prompted the present study of the British Tachinidae described or named by Walker and Stephens, so that the names can be placed as reliably as possible, and the omission from the first edition remedied. The essence of a good catalogue or check-list is that it should at least account for all the names involved in the group under consideration, even if those names cannot in the state of knowledge be accurately interpreted and even if they lack status in zoological nomenclature. In this respect, it is of interest to note, the early Diptera lists of White (1853) and Verrall (1888; 1901) were superior to the list of Kloet & Hincks (1945) since they did at least record some or most of Walker's British names. These lists all omitted Stephens's names, probably because they are almost all *nomina nuda*, but it has been thought logical to account for Stephens's names in the present paper because some of them were used and given nomenclatural availability by Walker (who had access to the Stephens collection).

Type-specimens have been located for about half of the nominal species here concerned that Walker described; the remainder have not been found and are deemed to be lost. Most of the types are in the British Museum (Natural History) and were found in a special cabinet containing the amalgamated remnants of Stephens's and Walker's collections of Diptera; they have now been removed from this cabinet and placed together in a drawer in the collection of British dipterous types. A few types are in the University Museum, Oxford, these all being specimens that Walker described from the collection (now mostly lost) of Desvignes.

The interpretations of names after study of the types, or decisions as to their status in the absence of types, that are given in this paper form the basis upon which the Walker and Stephens names will be recorded in the forthcoming Diptera volume of the new Kloet & Hincks's Check List of British Insects.

## RECOGNITION OF WALKER'S BRITISH TYPES

Francis Walker described 116 nominal species from 'England' that he assigned to the genus *Tachina* Meigen and one nominal species from 'England' that he assigned to the genus *Dexia* Meigen. In addition to these he described three nominal species (one *Dexia*, two *Tachina*) from unknown localities that almost

certainly had a British provenance, and published four replacement names for his own homonyms. There is therefore a total of 124 Walker names for British Tachinidae and allied forms to be accounted for in the British fauna.

These names were published in only two works, namely Walker's (1849) List of the Specimens of Dipterous Insects in the Collection of the British Museum (Vol. 4), and his (1853) Insecta Britannica, Diptera (Vol. 2). Twenty-four of the nominal species were described in the 1849 work and the other 96 in the 1853 work; the latter also contains the four replacement names.

The type-specimens of the nominal species described in 1849 were all found in the collection of the British Museum (Natural History) many years ago and labelled to show their identity by Major E. E. Austen. Each such type bears a circular green-edged type label on which Austen wrote the name in black ink, and usually also a pencilled label in Austen's hand reading 'England'. Some of these types were the subject of published notes by Austen (1907) indicating their identities. The recognition of Walker's (1849) types therefore presented no problems.

The type-specimens on which Walker's (1853) descriptions were based had not, however, been previously recognized and labelled as such except for a few which

The type-specimens on which Walker's (1853) descriptions were based had not, however, been previously recognized and labelled as such except for a few which Walker had recorded as being in Desvignes's collection; a few specimens were found in the University Museum at Oxford and in the British Museum (Natural History) (hereafter abbreviated to BMNH) bearing old labels that gave a Walker name and the statement '. . . Walker's original type from Desvignes' collection' (the hand-writing being unrecognized but possibly Verrall's) and comparison of such specimens with the descriptions left no doubt that they are indeed primary types of the nominal species named on the labels.

Most of the extant Walker (1853) types are in the BMNH and stood amongst the Stephens collection, but when found were easily differentiated from Stephens's own specimens by the nature of the labels standing beneath the specimens. The specimens themselves bore no labels, but the identities were at once evident from printed name labels associated with the specimens and pinned into the Stephens-Walker cabinet just below them; comparison of the specimens so-named with the descriptions showed that the labelling could be relied upon. The printed labels were found to be of two kinds, and it was quickly obvious that one kind had been cut from Stephens's (1829a) Nomenclature of British Insects and the other kind from White's (1853) List of the Specimens of British Animals in the Collection of the British Museum, Part XV (Diptera). The kind of label differentiated the older Stephens material from the later Walker material that had been placed with it.

The Stephens name labels consist simply of his name for the species in Roman type followed by his 'mihi' suffix in italics: e.g. 'nigrolineata *mihi*.'. The White name labels for Walker's species consist of a serial number, followed by the specific name in Roman type and Walker's abbreviated name in italics: e.g. '122 delitescens *Walk*.'.

It is important to note a cause of consistent discrepancy of one number between the serial numbers given by Walker (1853) to his species and the serial numbers given in White's list. Walker's (1853) serial numbers for his species of British *Tachina* ran from No. 1 on p. 19 to No. 166 on p. 92, but there was no species with

the serial number 51 and Walker himself noted this omission in a footnote on p. 41; thus Walker's series went from '50 exacta' to '52 agilis'. White (1853) produced his list from Walker's (1853) publication, which had just appeared in the same year, but to avoid the omission of No. 51 he renumbered all of Walker's series from 52 onwards; thus agilis became 51, not 52, and so on throughout the series to the last Tachina species which became 165, not 166. As a result, the printed numbers on the White labels (which are now removed from the cabinet and attached to the appropriate types) when in excess of 51 all differ by one from the serial number given by Walker and quoted in the references to the nominal species in the present listing.

In none of his descriptions of British Tachinidae did Walker state either the sex or the number of specimens he had, and for only two nominal species out of the sixty for which surviving type-material has been found is there more than one original type (these are T. commissa and T. intersecta for which two syntypes each have been found and for which lectotypes are designated). The presumption is, therefore, that virtually all of Walker's nominal species were based on a single specimen, since there is no contrary evidence in the descriptions (such as a size range); the only exception to this is T. comosa for which a size range is given, thus suggesting at least two original specimens (only one exists and is designated as lectotype). It is specially likely that Walker had only one specimen of nearly all his species because he had no idea, it seems, of intraspecific variability: Austen (1907: 326) pointed this out in a little-known remark that deserves quotation: 'As proving that Walker described the *specimen*, and not the species, the characters of which he was generally incapable of grasping, it may be mentioned that he is responsible for no fewer than eleven synonyms of the well-known Eutachina rustica, Mg. [now Exorista rustica], the description in every case being based upon a single specimen.'

When only a single type-specimen has been found, and there is no evidence that more than one original specimen existed, that type-specimen has been accepted and is cited as the 'holotype', since it is in my view undesirable to adopt the practice of some workers and designate such specimens as lectotypes. (This is elaborated further in the following section.)

# HOLOTYPE OR LECTOTYPE? THE STATUS OF A SINGLE EXTANT TYPE FROM A TYPE-SERIES OF UNKNOWN SIZE

Sooner or later every practising taxonomist, at least in the field of entomology, meets the situation where for some particular nominal species-group taxon three factors coincide: (1) there was no originally designated type-specimen; (2) it cannot be ascertained with certainty how many specimens composed the type-series; and (3) only one extant type-specimen can be found. Such situations are commonplace, especially when dealing with the type-material of pre-20th century authors for whom it was not the custom to state how many specimens they had before them when drawing up their descriptions.

The question then arises – what is the status of the single extant type-specimen?

Should it be treated as the *holotype*, on the assumption that no other original specimens existed, until proved otherwise, or should it be designated as the *lectotype* on the assumption that it was probably only one of a multiple type-series?

In practice it appears that most taxonomists answer these questions by following what others do in their particular group, rather than by deliberating on the balance of the arguments and deciding for themselves: in this way it has come about, for instance, that dipterists tend to be 'holotypists' and hemipterists tend to be 'lectotypists'. Each group tends to cling rather tenaciously to its viewpoint and to quote the gospel of the *International Code of Zoological Nomenclature* in defence of it; yet the *Code* is in reality none too helpful on the point, particularly as it implies two definitions for a 'holotype' in Article 73 but only one in the Glossary (an anomaly touched upon further below).

It seems to me that the arguments are overwhelmingly in favour of treating single extant types (of the kind under discussion) as holotypes, and therefore against their designation as lectotypes, and it is my aim in the present section to put forward the reasons for this viewpoint. The principles that I apply in the present paper, and have consistently applied in taxonomic practice, may be put into words as follows:

- (1) If a nominal species-group taxon was based upon an unstated number of specimens and had no originally designated type-specimen, a single extant type is the holotype (unless contrary evidence from any source exists or until it is obtained).
- (2) If it is later proved that other type-material exists then the specimen hitherto recognized as holotype becomes one of a syntype series from which any specimen may be designated as the lectotype.

There is nothing in the procedure just outlined that, in my view at least, could be considered contrary either to the letter or the spirit of Article 73 of the Code. In this Article it is made clear that there are two circumstances in which a nominal species has a holotype (the Code uses 'species' but 'species-group taxon' is meant): the first circumstance (lettered '(a)' in the Code) is that in which the nominal species 'is based on a single specimen', without any qualification requiring that this is made evident in the original publication: the second circumstance (lettered '(b)' in the Code) is that in which the describer designates or indicates in the original description that only one specimen is the 'type'. Regrettably, however, the Glossary (Code, p. 149) defines 'holotype' in only one way, namely as the kind of holotype specified in Article 73(b), and in this respect there is a discrepancy between the text of the Code and its Glossary. In this situation it should be the text that is definitive, and it follows therefore that a type-specimen of the kind defined in the text of Article 73(a) is just as much a 'holotype' as the kind referred to in Article 73(b) and the Glossary.

It is clear from this that when only one type-specimen of a nominal species-group taxon can be found, and there is no originally designated 'type' or evidence of the number of original specimens, that extant type-specimen can be the holotype (i.e. there are no grounds under the Code for supposing that it should automatically

be designated as the lectotype even though it is theoretically possible that the one extant specimen is the only survivor from a multiple type-series). It is my argument here that it is, in fact, undesirable on several grounds to designate such a specimen as lectotype (even though it can permissibly be so designated under the *Code*). The main objections to lectotype designation may be put as follows:

(1) It is binding on future zoologists and ties the name in perpetuity to the one extant specimen.

[It may be that the extant specimen is damaged or belongs to the sex not habitually carrying the best characters. A subsequently discovered syntype could not be made the name-bearing specimen, even though it might have been a better specimen for lectotype designation either on practical or nomenclatural grounds.]

(2) It is based on the subjective surmise that the type-series consisted of multiple

specimens.

[It is objective fact that there must have been at least one original specimen whereas it is in the realm of conjecture that there were more.]

(3) It is, for most groups at least, contrary to probability that the type-series

ever contained more than a single specimen.

[It is mainly the species-group taxa of early authors that are involved in the situations under discussion. In these earlier times it was commonplace for taxa to be described from lone specimens, though in certain orders it was more usual than in others for describers to have more than one original specimen. For many groups, at least, single type-specimens were the norm upon which nominal species-group taxa were based.]

(4) It imposes upon later workers the obligation to cite the names of the desig-

nators and the references to the designations (e.g. in catalogues).

[This is a minor objection but relevant, since the imposition is a needless one.]

(5) It will incline other workers to presuppose the existence of paralectotypes when none in fact exist.

[The very fact of designation of a lectotype leads other workers immediately to assume that evidence exists that the original material consisted of two or more syntypes, whereas in the cases here concerned there is no such evidence. Lectotype designation and the absence of paralectotypes could be confusing to other workers, since designation of a lectotype normally *implies* very strongly either that multiple syntypes still exist or that there is certain evidence that they once existed.]

The reasons why I prefer to recognize single extant type-specimens of the kind under discussion as holotypes, and not to designate them as lectotypes, can be inferred from the arguments against lectotype designation adduced above, but it may nevertheless be useful to summarize them thus:

Recognition as holotype: (1) does not tie the hands of a future zoologist if additional type-specimens are discovered, who remains free to designate the most appropriate specimen; (2) is consonant with the fact that at least one specimen *must* have

existed whereas more than one may have existed; (3) is consonant with the fact that most frequently the description would have been based only on one specimen; (4) imposes no practical 'recording' burden on other workers; and (5) does not mislead other workers into assuming that syntypes were known positively to exist or have existed.

From item (I) enumerated above it will be evident that recognition of the single extant specimen does not, in my view, automatically make it a lectotype if other specimens (syntypes) are discovered. (Here it may be noted that there are, of course, many instances in taxonomic practice where an author is deemed to have fixed a lectotype, even though he did not use this term for the single name-bearing specimen; in these instances the author was aware at the time of his publication that more than one original specimen existed and his citation of one specimen, by whatever terminology, as type had the intention of fixing the name to that specimen.)

### EXPLANATORY COMMENTS ON THE FORMAT ADOPTED

The nominal species-group taxa are listed in alphabetical order of their original combinations, and for each name the entry is arranged in the following sequence.

Name; author; date and page reference of original publication; serial number of the nominal species in the original publication (if any); status and sex of primary type (if known); present lectotype designation (when necessary); locality of primary type; type-depository.

Number and sex of paralectotypes if such exist, with data and depository information as for primary types.

Statement on the condition and labelling of the type-material.

A statement (prefixed 'Identity.') on the generic placement and taxonomic validity of the name, accompanied when known by similar data to that outlined above for the names of senior or junior synonyms.

The following points should be noted with regard to the information supplied:

- I. Lost types. For many nominal species the type-material is lost and there is no evidence on the number of original specimens or their sex; in these cases the statement 'Type(s) [? sex]' is used to indicate the lack of information. Very rarely it is clear from a size range given in the description that there must have been at least two specimens, and such cases are recorded as 'Syntypes [? sex]'. When types have not been located the word 'lost' is given in parentheses after the locality.
- 2. Locality. The British Tachinidae described by Walker were all recorded as from England without any further locality data. In the 1853 work Walker indicated this locality simply by use of the letter 'E'. The locality has been recorded simply as 'England'.
- 3. *Type-depositories*. As these are given for the primary types of the synonyms of Walker's names as well as for Walker's nominal species there are several type-depositories involved. The following abbreviations are used to indicate these:

BMNH British Museum (Natural History), London. MNHN Muséum National d'Histoire Naturelle, Paris, MZ Museo Zoologico 'La Specola', Florence.

NM Naturhistorisches Museum, Vienna.

NR Naturhistoriska Riksmuseum, Stockholm.

UM University Museum, Oxford.

UZI Universitetets Zoologiska Institution, Lund.

#### WALKER'S NAMES IN THE BRITISH TACHINIDAE

Note: names of nominal species that were assigned by Walker to *Tachina* but are now known not to apply to Tachinidae are included, for convenient cross-reference, in the list that follows but are printed in non-bold italics and are enclosed in square brackets. Names that are junior homonyms are in non-bold italics but not bracketed. The numbers given in brackets following the page-references are the serial numbers given to the nominal species by Walker with the original descriptions.

Dexia fingens Walker, 1853: 98 (No. 7). Type(s) [3], England (lost).

Identity. Unknown, the name remains a nomen dubium. Walker's (1853:94–99) sense of Dexia Meigen included species now assigned to the genera Mintho Robineau-Desvoidy, Estheria Robineau-Desvoidy, Phyllomya Robineau-Desvoidy, Thelaira Robineau-Desvoidy and Dexiosoma Rondani. It is impossible to deduce the identity of D. fingens from the description, although this clearly applies to a male specimen.

Tachina accidens Walker, 1853: 89 (No. 160). Holotype 3, England (BMNH, ex coll. Walker).

The holotype has the thoracic dorsum damaged, has lost the last four segments of each hind tarsus and has some fungal threads, but is otherwise in good condition. It bears a printed label '159 accidens *Walk*.'.

Identity. Syn. n. of *Phyllomya volvulus* (Fabricius, 1794: 328 (*Musca*)), type(s) [? sex], ITALY (lost or destroyed, except one wing).

Tachina admete Walker, 1849: 743. Holotype J, England (BMNH).

The holotype has lost the left fore and mid legs, the right mid leg, and some setae, and the thorax is greasy. It bears a circular green-edged type label on which Austen has written the name in black ink.

Identity. Junior synonym of Exorista (Adenia) rustica (Fallén, 1810: 264 (Tachina)), lectotype &, Sweden (NR, Stockholm) [examined and herein designated]. The synonymy of admete with rustica was first established by Austen (1907: 329) and has been confirmed during the present work by examination of the holotype genitalia.

Tachina ambivius Walker, 1849: 754. Holotype ♀, England [?] (BMNH).

The holotype is in fair condition, but has lost both hind legs and the left arista; the mesonotum and scutellum are rubbed and most of the frontal setae are missing. It bears a circular green-edged type label on which Austen has written the name in black ink, and a label in Wainwright's writing that reads 'CHAETOLYA ambivius Walk = setigena Rond Q'.

Identity. Valid senior synonym for Chetina setigena Rondani, new combination Chetina ambivius (Walker) comb. n. here established. C. setigena Rondani, 1856: 65, holotype [? sex], ITALY (MZ, Florence) [examined by Herting], here established as a junior synonym (syn. n.) of C. ambivius (Walker, 1849).

Dr Herting has examined the holotype of *ambivius* and confirms that the name applies to the same species as Rondani's *setigena*. Wainwright had evidently realized this, as he had attached a label to the holotype indicating the synonymy, but so far as I can trace the

synonymy was not established by Wainwright in publication and is therefore new. (The generic name *Chaetolya* on Wainwright's label is a variant spelling of *Chetilya* Rondani, 1861, which itself appears to be a variant spelling of *Chetilia* Rondani, 1859, and is a junior synonym of *Chetina* Rondani, 1856; the last is also commonly known by the variant spelling *Chaetina*.)

The species here concerned, formerly known as *Chetina setigena*, is not known to be a British species, and it therefore appears possible that the holotype of *ambivius* does not have a British provenance. Walker recorded the locality as 'England' in the description, and Austen has attached a pencilled label to the holotype indicating England as type-locality, but there is no means now of discovering whether the specimen truly originated in Britain. *Chetina ambivius* (Walker) is mainly a central European species, and must be treated as very doubtfully British in the absence of later material confirming its existence in the British fauna.

Tachina amphiro Walker, 1849: 749. Holotype &, England (BMNH).

The holotype is in poor condition; the left legs, right fore leg and left wing are lost, the right wing damaged, the head badly crushed and the body greasy. It bears a circular green-

edged type label on which Austen has written the name in black ink.

Identity. Syn. n. of Phryxe heraclei (Meigen, 1824: 339 (Tachina)), holotype of, Germany (MNHN, Paris) [examined by Herting]. Austen (1907: 329) placed amphiro as a synonym of Phryxe vulgaris (Fallén, 1810), which was justified in the state of knowledge at that time, but examination of the holotype genitalia during the present work showed that amphiro is actually a synonym of heraclei, not of vulgaris.

Tachina augens Walker, 1853: 73 (No. 124). Type(s) [? sex], ENGLAND (lost).

Identity. Unknown, the name remains a nomen dubium. The identity cannot be deduced from the description or from Walker's (1853:18) key placement, in which he associated augens (No. 124) with delitescens Walker (No. 123). The name appears certainly to have applied to a Tachinid.

Tachina bijuncta Walker, 1853: 24 (No. 12). Type(s) [? 3], ENGLAND (lost).

Identity. Unknown, the name remains a nomen dubium. Bezzi (1907:211) doubtfully assigned bijuncta to Ernestia (Ernestia) Robineau-Desvoidy, presumably from the description, but there is nothing sufficiently tangible in the original description or in the key placement (Walker, 1853:15) for reliable generic assignment. Walker associated bijuncta in his key with dispartita Walker (No. 10) and intracta Walker (No. 11) but types of these are also lost.

Tachina broteas Walker, 1849: 763. Holotype &, England (BMNH).

The holotype has lost all left legs, the right fore leg and some scutellar setae, and has a

tear near the base of the left wing but is otherwise in fair condition.

Identity. Junior synonym of Actia pilipennis (Fallén, 1810: 273 (Tachina)), lectotype 3, Sweden (NR, Stockholm) [examined and herein designated]. The synonymy of broteas with pilipennis was first established by Austen (1907: 339) and is here confirmed after direct comparison of the primary types.

[Tachina caminaria Walker, 1853. Not Tachinidae, see p. 298].

Tachina cerceis Walker, 1849: 747. Holotype ♀, England (BMNH).

The holotype is in very good condition. It bears a circular green-edged type label on which Austen has written the name in black ink.

Identity. Junior synonym of Exorista (Adenia) rustica (Fallén, 1810: 264 (Tachina)), lectotype 3, Sweden (NR, Stockholm) [examined and herein designated]. The synonymy of cerceis with rustica was first established by Austen (1907: 329) and is here confirmed.

Tachina certans Walker, 1853: 74 (No. 125). Holotype Q, England (BMNH, ex coll. Walker).

The holotype is in very good condition except for the loss of some tarsal segments. It bears a printed label '124 certans Walk.'.

Identity. Syn. n. of *Timavia amoena* (Meigen, 1824: 264 (*Tachina*)), syntypes ♂♀, Germany (MNHN, Paris) [examined by Herting].

Tachina clymene Walker, 1849: 784. Holotype &, England (BMNH).

The holotype is in good condition except for loss of the left fore leg and tip of the right hind tarsus. It bears a circular green-edged type label on which Austen has written the name in black ink.

Identity. Syn. n. of Zophomyia temula (Scopoli, 1763: 330 (Musca)), type(s) [? sex], Austria (lost).

Tachina collecta Walker, 1853: [298]. Replacement name for Tachina neglecta Walker,

1853: 79, primary homonym of Tachina neglecta Walker, 1853: 25.

Walker (1853) described two different species with the name *Tachina neglecta*, but published the replacement name *T. collecta* for the second use of the name *neglecta* in a table of 'Errata' on an unnumbered page immediately following the last numbered page of the work (p. 297). Type-information for *T. collecta* is given under *T. neglecta* (2), q.v.

Identity. Syn. n. of *Phryxe vulgaris* (Fallén, 1810: 282 (Tachina)), lectotype  $\Im$ , Sweden (NR, Stockholm) [examined and herein designated]. The  $\Im$  holotype of collecta = neglecta has been directly compared with  $\Im$  paralectotypes of vulgaris as well as with the  $\Im$ 

lectotype.

Tachina comitata Walker, 1853: 55 (No. 83). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. The identity cannot be deduced from the description or from Walker's (1853:17) key placement, in which he associated comitata (No. 83) with distenta (No. 82); the type of the latter is also lost. T. comitata was described from Desvignes's collection.

Tachina commissa Walker, 1853: 69 (No. 114). LECTOTYPE ♀, by present designation, England (BMNH, ex coll. Desvignes).

Paralectotype: Q, England (UM, Oxford, ex coll. Desvignes).

The lectotype has lost the abdomen and the right hind leg but, apart from rubbing of the frontal setae, is otherwise in good condition. The paralectotype is in extremely bad condition, abdomen and mid and hind legs and right wing lost, both third antennal segments lost and a large hole in the thoracic dorsum; the parts that remain are mouldy. Lectotype and paralectotype are each labelled 'T. commissa. Walker's original type from Desvignes' collection' in an unrecognized handwriting.

Identity. Syn. n. of Lypha dubia (Fallén, 1810: 284 (Tachina)), lectotype  $\mathcal{J}$ , SWEDEN (NR, Stockholm) [examined and herein designated]. The type-material of commissa has been directly compared with  $\mathcal{Q}$  paralectotypes of dubia as well as with the  $\mathcal{J}$  lectotype. Bezzi (1907: 222) wrongly placed commissa as a possible synonym of Lydina aenea (Meigen).

Tachina comosa Walker, 1853: 75 (No. 128). LECTOTYPE 3, by present designation, England (BMNH, ex coll. Walker).

The description of this species gives a size range for body and wing length, from which fact it is evident that there was more than one original specimen. Only one syntype, however, has been found and this is designated as lectotype. The lectotype is in good condition except for a little mould and loss of the right fore tarsus; it bears a printed label

'127 comosa Walk.'.

Identity. Syn. n. of Lypha dubia (Fallén, 1810: 284 (Tachina)), lectotype 3, SWEDEN (NR, Stockholm) [examined and herein designated]. The 3 lectotypes of comosa and dubia have been directly compared.

Tachina computa Walker, 1853: 64 (No. 103). Holotype Q, England (BMNH, ex coll. Walker).

The holotype is in bad condition, very mouldy, both wings torn, left fore and hind legs lost, left mid tarsus lost, and right fore tarsus lost. It bears a printed label '102 computa Walk.'.

Identity. Syn. n. of Campogaster exigua (Meigen, 1824: 367 (Tachina)), holotype 3, Germany (MNHN, Paris) [examined by Herting].

Tachina confecta Walker, 1853: [298]. Replacement name for Tachina defecta Walker,

1853: 46, primary homonym of Tachina defecta Walker, 1853: 27.

Walker (1853) described two different species with the name *Tachina defecta*, but published the replacement name *T. confecta* for the second use of the name *defecta* in a table of 'Errata' on an unnumbered page immediately following the last numbered page of the work (p. 297). White (1853: 22) published the name *Tachina walkeri* as a replacement name for the second use of *T. defecta* (evidently not appreciating that Walker had himself dealt with the homonymy), and *walkeri* White is therefore a synonym of *confecta* Walker.

Identity. Unknown, the name remains a nomen dubium as the type-material of defecta (2)

is lost and nothing reliable can be deduced from the description.

Tachina conjuncta Walker, 1853: 59 (No. 91). Type(s) [? sex], England (lost)

Identity. Unknown, the name remains a nomen dubium. Verrall (1888:21) assigned conjuncta to Nemoraea Robineau-Desvoidy, but later (Verrall, 1901:25) listed conjuncta as a synonym of Erigone strenua (Meigen). On the basis of Verrall's (1901) placement, Bezzi (1907:218) listed conjuncta as a synonym of Ernestia rudis (Fallén, 1810), of which E. strenua (Meigen, 1824) is a synonym. It is unknown what evidence Verrall may have had for his placement of the name, but as Walker's description of conjuncta is at variance with the characters of E. rudis the synonymy given by Verrall and Bezzi is not accepted here (the size alone, in the original description, contra-indicates their synonymy).

Tachina constans Walker, 1853:75 (No. 129). Holotype ♀, England (BMNH, ex coll. Walker).

The holotype has lost both hind legs, the left fore leg and the right mid leg, and the abdomen is impaled on the pin separately from the rest of the specimen; the thorax has some mould but the bristling is well preserved. It bears a printed label '128 constans Walk.'.

Identity. Syn. n. of Phryxe vulgaris (Fallén, 1810: 282 (Tachina)), lectotype  $\Im$ , Sweden (NR, Stockholm) [examined and herein designated]. The  $\mathcal{Q}$  holotype of constans has been directly compared with  $\mathcal{Q}$  paralectotypes of vulgaris as well as with the  $\mathcal{A}$  lectotype.

[Tachina contempta Walker, 1853. Not Tachinidae, see p. 298].

Tachina contracta Walker, 1853: 24 (No. 13). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Bezzi (1907:212) listed contracta as a doubtful species of Ernestia Robineau-Desvoidy, evidently deducing this possibility from the description. There is insufficient evidence that contracta is an Ernestia to accept this placement, and in the absence of type-material the identity is impossible to determine.

Tachina crisia Walker, 1849: 738. Holotype of, England (BMNH).

The holotype is in very good condition except for loss of the right mid leg. It bears a circular green-edged type label on which Austen has written the name and sex in black ink.

Identity. Syn. n. of Eurithia anthophila (Robineau-Desvoidy, 1830: 66 (Erigone)), syntypes δ Ω, France (lost). Austen (1907: 329) placed crisia as a synonym of Ernestia (Erigone) radicum (sensu Fabricius, not Linnaeus) which is the species to which the name anthophila rightly applies.

Tachina defecta Walker, 1853: 27 (No. 18). Holotype ♀, England (UM, Oxford, ex coll. Desvignes).

The holotype is in poor condition with both mid and hind legs lost, most of left fore tarsus lost, and most of the left wing lost; the body is dirty and rather mouldy. It bears a label

reading 'T. defecta Walker's original type from Desvignes' collection' in an unrecognized handwriting.

Identity. Syn. n. of Billaea irrorata (Meigen, 1826: 44 (Dexia)), holotype &, Germany (MNHN, Paris) [examined by Herting]. Verrall (1888: 22) placed defecta as a possible species of Dexia Meigen.

Tachina defecta Walker, 1853: 46 (No. 61). Type(s) [? sex], England (lost). Primary homonym of T. defecta Walker (1853: 27).

Walker (1853: [298]) published the replacement name *Tachina confecta* (q.v.), and White (1853: 22) published the replacement name *Tachina walkeri*, for Walker's second use of the name *T. defecta*. See under *T. confecta*, above, for a note on the identity.

Tachina delitescens Walker, 1853: 73 (No. 123). Holotype 3, England (BMNH, ex coll. Walker).

The holotype has lost the left hind leg, left fore tarsus and most of the left mid tarsus, but is otherwise in good condition except for a little mould. It bears a printed label '122 delite-scens Walk.'.

Identity. Syn. n. of *Timavia amoena* (Meigen, 1824: 264 (*Tachina*)), syntypes & Q, Germany (MNHN, Paris) [examined by Herting].

Tachina demissa Walker, 1853: 78 (No. 135). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing can be deduced about the identity from the original description or from Walker's (1853:18) key placement, in which he associated demissa with denotans (= Dinera grisescens), contempta (= Sarcophaga s.l. sp.) and objecta (identity unknown).

Tachina demota Walker, 1853: 61 (No. 96). Holotype ♀, England (BMNH, ex coll. Walker).

The holotype has lost all left legs and the right fore tarsus, and is rather dirty with greased head, but is otherwise in fairly good condition. It has a printed label '95 demota Walk.'.

Identity. Syn. n. of Lydella grisescens Robineau-Desvoidy, 1830: 112, type(s) [? sex], France (lost).

Tachina denotans Walker, 1853: 77 (No. 132). Holotype &, England (BMNH, ex coll. Walker).

The holotype is in good condition except for having lost both mid legs and the left third antennal segment. It has a printed label '131 denotans Walk.'.

Identity. Syn. n. of Dinera grisescens (Fallén, 1816: 243 (Musca)), holotype &, Sweden (NR, Stockholm) [examined]. The holotypes of denotans and grisescens have been directly compared.

Tachina detracta Walker, 1853: 22 (No. 8). Type(s) [? sex], ENGLAND (lost).

Identity. Unknown, the name remains a nomen dubium though undoubtedly applying in the Ernestiini. Walker's description and his key placement (Walker, 1853:15) in a group with caesia Fallén (No. 7) and puparum Fabricius? (No. 9) undoubtedly indicate that the name detracta applied to a species of Ernestiini, but it is impossible to determine which of the several British species of this tribe he had before him. Bezzi (1907:212) listed detracta as a possible species of Ernestia Robineau-Desvoidy.

Tachina diniele Walker, 1849: 771. Holotype &, England (BMNH).

The holotype has lost the left mid leg and most of the left fore tarsus and a few setae but is otherwise in good condition. It bears a circular green-edged type label on which Austen has written the name in black ink.

Identity. Syn. n. of Pales pumicata (Meigen, 1824: 397 (Tachina)), syntypes 3 & [1 misassociated] Germany (MNHN, Paris) [examined by Herting].

Tachina discrepans Walker, 1853:54 (No. 80). Holotype ♀, England (UM, Oxford, ex coll. Desvignes).

The holotype is very dirty with mould and has lost the left mid and hind legs and the right fore leg, but the chaetotaxy is well preserved. It bears a label reading 'T. Discrepans. Walker's original type from Desvignes' collection' in an unrecognized handwriting.

Identity. Syn. n. of Lydella grisescens Robineau-Desvoidy, 1830: 112, type(s) [? sex], France (lost). Verrall (1888: 21) incorrectly assigned discrepans to the genus Masicera Macquart, and evidently on the basis of this Bezzi (1907: 283) included the name in his list of 'Species dubiae' of Masicera.

Tachina disjuncta Walker, 1853:44 (No. 58). Type(s) [? sex], England (lost). Junior

primary homonym of Tachina disiuncta Wiedemann, 1824.

Identity, Unknown, the name remains a nomen dubium. Bezzi (1907: 336) placed disjuncta as a synonym of Exorista larvarum (Linnaeus) but there appears to be no evidence in support of this placement; Bezzi cited no reference for the name other than the original, and Verrall's (1888; 1901) lists had simply recorded disjuncta under Tachina without suggesting any synonymy. It is not known why Bezzi placed disjuncta in synonymy with larvarum, especially as there is nothing in the description which specially supports such placement.

Walker's disjuncta is here considered to be a junior primary homonym of Tachina disjuncta Wiedemann, although the original spelling of the latter specific name was disjuncta. The 'i' and 'j' difference is not one of the variable spelling situations covered by Code Article 58, but clearly should be under the spirit if not the letter of this Article.

Tachina dispartita Walker, 1853: 23 (No. 10). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the original description or from Walker's (1853:15) key placement in which he associated dispartita with bijuncta (No. 12) and intracta (No. 11); types of these are also lost. Bezzi (1907:212) listed dispartita as possibly a species of Ernestia Robineau-Desvoidy, which could be correct, but there is nothing to substantiate it.

Tachina dispecta Walker, 1853: 60 (No. 94). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Verrall (1888:21) assigned dispecta to the genus Nemoraea Robineau-Desvoidy, but later placed the name as a synonym of Winthemia quadripustulata (Fabricius, 1794) (cited by Verrall as Chaetolyga quadripustulata). Bezzi (1907:231) accepted Verrall's (1901) synonymy. No evidence is available that Verrall actually saw type-specimens, and his 1901 placement seems to be a guess from the original description (perhaps largely based on Walker's description of the abdomen as 'obconico tessellato, apice rufo'). Though the description of the abdomen fits quadripustulata there are other parts of the description (such as 'palpi black', emphasised by Walker in italics) that contra-indicate this species. Evidence that dispecta was a Winthemia Robineau-Desvoidy is inconclusive and the name is best left standing as a nomen dubium. The species was described from Desvignes's collection.

Tachina dispuncta Walker, 1853: 57 (No. 87). Type(s) [? sex], England (lost). Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the original description or from Walker's (1853: 17) key placement.

Tachina distenta Walker, 1853: 55 (No. 82). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the original description or from Walker's (1853:17) key placement, in which he associated distenta (No. 82) with comitata (No. 83); the type-material of the latter is also lost. The species was described from Stephens's collection.

Tachina distermina Walker, 1853: 61 (No. 95). Holotype Q, England (BMNH, ex coll. Stephens).

The holotype is in good condition except that the left arista and the left mid leg from the 3\*

middle of the tibia are lost, and the ptilinum extruded. It bears a printed label '94 distermina Walk.'.

Identity. Syn. n. of *Phryxe vulgaris* (Fallén, 1810: 282 (*Tachina*)), lectotype &, Sweden (NR, Stockholm) [examined and herein designated]. The Q holotype of *distermina* has been directly compared with Q paralectotypes of *vulgaris* as well as with the & lectotype.

Tachina divulsa Walker, 1853: 45 (No. 59). Type(s) [? sex], England (lost).

*Identity*. Unknown, the name remains a *nomen dubium*. Nothing reliable can be deduced from the original description or from Walker's (1853: 16) key placement. The species was described from Desvignes's collection.

Tachina domator Walker, 1853: 62 (No. 97). Type(s) [? sex], ENGLAND (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the original description or from Walker's (1853:17) key placement, in which he associated divulsa with some other nominal species known to belong in Eryciini. The species was described from Desvignes's collection.

Tachina effecta Walker, 1853: 51 (No. 74). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853: 17) key placement.

Tachina emissa Walker, 1853: 49 (No. 68). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853:16) key placement, in which he associated emissa with three other nominal species, one of which (No. 70) is now known to be an Exorista Meigen. The species was described from Desvignes's collection.

Tachina enodata Walker, 1853: 57 (No. 86). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853:17) key placement, in which he associated enodata with fulgens Meigen. The latter is now known to be a synonym of Linnaemya comta (Fallén). It is of interest to note that in the genus Linnaemya Robineau-Desvoidy the palpi are vestigial and that Walker, contrary to his usual practice, did not mention the palpi in the description of enodata; it is certainly possible that enodata was described from a specimen of Linnaemya, but in the absence of adequate confirmation the name enodata must remain a nomen dubium.

Tachina enotata Walker, 1853: 48 (No. 67). Type(s) [? sex], England (lost).
Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853: 16) key placement, in which he grouped enotata (No. 67) with interclusa (No. 66); the type-material of the latter is also lost.

Tachina erecta Walker, 1853: 76 (No. 131). Type(s) [? sex], ENGLAND (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853:18) key placement. The species was described from Stephens's collection.

Tachina erogata Walker, 1853: 54 (No. 79). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853:17) key placement, in which he associated erogata (No. 79) with immissa (No. 77) (= Lydella grisescens) and involuta (No. 78) (identity unknown).

Tachina evidens Walker, 1853: 42 (No. 54). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853: 16) key placement, in which he associated evidens (No. 54) with intacta (No. 55), of which the type-material is also lost.

Tachina evocata Walker, 1853: 38 (No. 43). Type(s) [? sex], ENGLAND (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853:16) key placement. Bezzi (1907:283) listed evocata in his 'Species dubiae' of Masicera Macquart, evidently having taken this from Verrall's (1888, pt. 2:4) tentative placement of evocata as a Masicera species.

Tachina evoluta Walker, 1853: 40 (No. 48). Type(s) [? sex], ENGLAND (lost).

*Identity*. Unknown, the name remains a *nomen dubium*. Nothing reliable can be deduced from the description or from Walker's (1853:16) key placement.

Tachina exacta Walker, 1853: 41 (No. 50). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Verrall (1888: 21) assigned exacta to the genus Nemoraea Robineau-Desvoidy, but later placed the name as a synonym of Timavia amoena (Meigen, 1824) (cited by Verrall as Chaetolyga amoena). Bezzi (1907: 229) accepted Verrall's synonymy. No evidence is available that Verrall actually saw typespecimens of exacta, and discrepancies between its description and the characters of amoena make it unlikely that Walker's nominal species is truly synonymous with Meigen's. The name exacta is therefore not accepted as a synonym of amoena, and remains a nomen dubium.

Tachina exagens Walker, 1853: 60 (No. 93). Type(s) [? sex], ENGLAND (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853:17) key placement, in which he associated exagens (as No. 93) with several other numbered species; the associated species, where the identities are known, belong in the Eryciini and it is probable that exagens was an Eryciine. The species was described from Desvignes's collection.

Tachina excessa Walker, 1853:65 (No. 105). Holotype ♀, England (BMNH, ex coll. Walker).

The holotype is in good condition except that it has lost the right hind leg and the left third antennal segment, and carries some fungal threads. It bears a printed label '104 excessa Walk.'.

Identity. Syn. n. of Dufouria nigrita (Fallén, 1810: 286 (Tachina)), lectotype  $\Im$ , Sweden (NR, Stockholm) [examined and herein designated]. The  $\mathbb Q$  holotype of excessa has been directly compared with the  $\mathbb Q$  paralectotypes of nigrita as well as with the  $\mathbb Z$  lectotype.

Tachina exclusa Walker, 1853: [298]. Replacement name for Tachina interclusa Walker, 1853: 48, primary homonym of Tachina interclusa Walker, 1853: 32.

Walker (1853) described two different species with the name *Tachina interclusa*, but published the replacement name *T. exclusa* for the second use of the name *interclusa* in a table of 'Errata' on an unnumbered page immediately following the last numbered page of the work (p. 297).

*Identity*. Unknown, the name remains a *nomen dubium* as the type-material of *interclusa* (2) is lost and nothing reliable can be deduced from the description or key placement.

[Tachina expetita Walker, 1853. Not Tachinidae, see p. 298].

Tachina expleta Walker, 1853: 55 (No. 81). Type(s) [? sex], England (lost).

*Identity*. Unknown, the name remains a *nomen dubium*. Nothing reliable can be deduced from the description or from Walker's (1853: 17) key placement, in which he did not associate *expleta* with other species.

Tachina exscensa Walker, 1853 : 66 (No. 108). Holotype ♀, England (BMNH, ex coll. Stephens).

The holotype is in good condition except for the loss of the left fore and mid legs. It bears a printed label '107 exscensa Walk.'.

Identity. Syn. n. of Actia pilipennis (Fallén, 1810: 273 (Tachina)), lectotype of, Sweden (NR, Stockholm) [examined and herein designated]. The Q holotype of exscensa

has been directly compared with the Q paralectotypes of *pilipennis* as well as with the Q lectotype.

[Tachina exsecta Walker, 1853. Not Tachinidae, see p. 298].

Tachina fissa Walker, 1853: 51 (No. 72). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853:16) key placement, in which fissa was not grouped with other species.

Tachina flexa Walker, 1853: 58 (No. 89). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853:17) key placement, in which flexa was not grouped with other species. Verrall (1888:21) listed flexa in the genus Exorista Meigen, but later (Verrall, 1901:43) listed the name in its original combination, as did Bezzi (1907:351). Verrall's sense of Exorista included species that would now be placed in many genera in different tribes, and there is no evidence that flexa belonged to Exorista Meigen in its true sense. T. flexa was described from Desvignes's collection.

Tachina immissa Walker, 1853: 53 (No. 77). Holotype Q, England (UM, Oxford, ex coll. Desvignes).

The holotype is mouldy and has lost the left hind leg, the right mid leg and parts of the remaining tarsi. It bears a label reading 'T. Immissa. Walker's original type from Desvignes' collection' in an unrecognized handwriting.

Identity. Syn. n. of Lydella grisescens Robineau-Desvoidy, 1830: 112 type(s) [? sex], France (lost). Verrall (1888: 21) wrongly placed immissa in the genus Masicera Macquart, and this was doubtless the basis for Bezzi's (1907: 283) inclusion of the name in his list of Masicera 'Species dubiae'.

Tachina infensans Walker, 1853: 88 (No. 157). Holotype & England (BMNH, ex coll. Walker).

The holotype is in very good condition except for loss of the left mid leg and some distortion of the lower head and ptilinum. It bears a printed label '156 infensans Walk.'.

Identity. Syn. n. of Pales pavida (Meigen, 1824: 398 (Tachina)). Syntype & GERMANY (MNHN, Paris) [examined by Herting].

Meigen described pavida from both sexes but only a single type-specimen (a male) exists in Meigen's collection in Paris. At present this specimen has the status of syntype.

Tachina infestans Walker, 1853: 91 (No. 163). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853: 19) key placement.

Tachina infixa Walker, 1853: 70 (No. 116). Holotype & England (BMNH, ex coll. Walker). The holotype has lost the right mid and hind legs and the apex of the left hind tarsus but is otherwise in good condition (except for slight crushing of the left side of the head).

Identity. Syn. n. of Zaira cinerea (Fallén, 1810: 268 (Tachina)), lectotype & Sweden (NR, Stockholm) [examined and herein designated]. The & holotype of infixa and the & lectotype of cinerea have been directly compared.

Tachina inoperta Walker, 1853: 86 (No. 152). Type(s) [? sex], England (lost).
Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853: 19) key placement.

Tachina inquilina Walker, 1853: 87 (No. 154). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced

from the description or from Walker's (1853: 19) key placement. The species was described from Stephens's collection, but no specimen named as *inquilina* could be found in the Stephens material.

Tachina insedata Walker, 1853: 87 (No. 155). Type(s) [? sex], England (lost).

*Identity*. Unknown, the name remains a *nomen dubium*. Nothing reliable can be deduced from the description or from Walker's (1853:19) key placement.

Tachina insuscepta Walker, 1853 : 50 (No. 70). Holotype ♀, England (UM, Oxford, ex coll. Desvignes).

The holotype is in bad condition, being very mouldy and having lost the antennae, both

fore legs, and the apices of the right mid and hind legs.

Identity. Syn. n. of Exorista larvarum (Linnaeus, 1758: 596 (Musca)) sensu authors. Verrall (1888: 21) wrongly placed insuscepta in the genus Phorocera Robineau-Desvoidy, and this accounts for Bezzi's (1907: 319) placement of the name in his list of Phorocera 'Species dubiae'.

Tachina intacta Walker, 1853: 43 (No. 55). Type(s) [? sex], ENGLAND (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853:16) key placement, in which he associated intacta with evidens Walker (No. 54, type also lost).

Tachina intaminata Walker, 1853: 48 (No. 65). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description, or from Walker's (1853:16) key placement, in which he associated intaminata with? cincta Meigen. The very small size given by Walker (length 1½ lines) suggests that intaminata may not be a Tachinid. The species was described from Stephens's collection.

Tachina intercedens Walker, 1853: 31 (No. 28). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853:15) key placement. The species was described from Stephens's collection.

[Tachina intercepta Walker, 1853. Not Tachinidae, see p. 298].

Tachina interclusa Walker, 1853: 32 (No. 30). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853: 15) key placement. The very small size given by Walker (length 1½ lines) suggests that interclusa may not be a Tachinid.

Tachina interclusa Walker, 1853: 48 (No. 66). Type(s) [? sex], England (lost). Primary homonym of T. interclusa Walker (1853: 32).

Walker (1853: [298]) published the replacement name *Tachina exclusa* (q.v.) for his second use of the name *T. interclusa*. See under *T. exclusa*, above, for a note on the identity.

[Tachina interlapsa Walker, 1853. Not Tachinidae, see p. 299].

[Tachina interlatens Walker, 1853. Not Tachinidae, see p. 299].

Tachina intermixta Walker, 1853: 39 (No. 45). Type(s) [? sex], ENGLAND (lost).

Identity. Unknown, the name remains a nomen dubium. Verrall (1888: 21) placed intermixta as a species of Exorista Meigen, listing the name as valid, but later (Verrall, 1901: 23) treated intermixta as a synonym of notabilis Meigen, 1824. Bezzi (1907: 257, 259) repeated the synonymy established by Verrall. Meigen's notabilis is considered to be a synonym of Nemorilla floralis (Fallén, 1810), a winthemiine Tachinid with hairy eyes, but Walker (1853: 16) placed intermixta (as No. 45) in a section of his key in which the species had bare eyes and associated it with nana Walker (No. 46) which is a Rhinophorid. It is impossible to deduce anything reliable from the description as to the true identity of intermixta, which was described from Desvignes's collection, and there is no evidence that Verrall saw any type-specimen; these facts, together with the conflict between Walker's 'bare eyes' and the hairy eyes of notabilis = floralis, make Verrall's synonymy unacceptable and the name intermixta must revert to nomen dubium status.

Tachina interna Walker, 1853: 69 (No. 115). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Verrall (1888: 21) listed interna as a species of Exorista Meigen, and this was the basis for Bezzi's (1907: 251) placement of the name in his list of Exorista 'Species dubiae'. Verrall's concept of Exorista was very different from the modern conception of this genus, and since nothing reliable can be deduced from the description or from Walker's (1853: 17) key placement and there is no evidence that Verrall saw type-specimens the name interna must be considered a nomen dubium. The species was described from Desvignes's collection.

Tachina internexa Walker, 1853: 62 (No. 98). Type(s) [? sex], [England, presumed, as letter 'E.' omitted from description] (lost).

Identity. Junior synonym of Pales pavida (Meigen, 1824: 398 (Tachina)), syntype & Germany (MNHN, Paris) [examined by Herting]. The synonymy of internexa was first established by Verrall (1901: 24), who placed the name as a synonym of Phorocera cilipeda Rondani, 1859; but cilipeda is a synonym of pavida Meigen, and Bezzi (1907: 311, 312) therefore treated internexa as a synonym of pavida. Although the type-material of internexa from Desvignes's collection is lost the synonymy established by Verrall and Bezzi is considered correct; the description contains nothing that would contra-indicate it.

Tachina intersecta Walker, 1853: 38 (No. 42). LECTOTYPE of, by present designation, England (BMNH, ex coll. Desvignes).

Paralectotype: & England (UM, Oxford, ex coll. Desvignes).

The lectotype is in very good condition except for the loss of the right fore leg. The paralectotype is in very bad condition and consists only of the head and anterior half of the thorax, the right fore leg and left mid leg and the left wing, and what remains is badly obscured by mould. Lectotype and paralectotype are each labelled 'T. Intersecta Walker's original type from Desvignes' collection' in an unrecognized handwriting.

Identity. Syn. n. of Lypha dubia (Fallén, 1810: 284 (Tachina)), lectotype 3, SWEDEN (NR, Stockholm) [examined and herein designated]. The 3 lectotypes of intersecta and dubia have been directly compared. The female of this species was described by Walker (1853) as T. commissa, q.v. The spelling intersecta in Bezzi (1907: 283) is an incorrect subsequent

spelling.

[Tachina intersecta Walker, 1853 (second use of name). Not Tachinidae, see p. 299].

Tachina intersita Walker, 1853 : 72 (No. 121). Holotype ♀, England (UM, Oxford, ex coll. Desvignes).

The holotype is in extremely bad condition and consists only of the head, thorax and base of left wing, all of which are very dirty. It bears a label reading 'T. Intersita. Walker's

original type from Desvignes' collection' in an unrecognized handwriting.

Identity. Junior synonym of Nemorilla floralis (Fallén, 1810: 287 (Tachina)), lectotype &, SWEDEN (NR, Stockholm) [examined and herein designated]. Verrall (1901: 23) established the synonymy of intersita with notabilis Meigen, 1824, and Bezzi (1907: 259) also cited the name in synonymy with Nemorilla notabilis. The latter specific name is a synonym of floralis Fallén and intersita is therefore a junior synonym of floralis. The holotype remains of intersita have been directly compared with the Q paralectotype of floralis as well as with the Q lectotype.

Tachina intracta Walker, 1853: 23 (No. 11). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Bezzi (1907:212) listed intracta as a possible species of Ernestia Robineau-Desvoidy, and it seems probable from the description and Walker's (1853:15) key placement that the nominal species did belong in Ernestiini. No definite identification is, however, possible. The species was described from Stephens's collection.

Tachina involuta Walker, 1853: 53 (No. 78). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853:17) key placement, in which he associated involuta with immissa (= Lydella grisescens) and erogata (identity unknown).

Tachina medoacus Walker, 1849: 746. Holotype ♀, England (BMNH).

The holotype has lost the left fore leg and both third antennal segments, but is otherwise in fair condition except for rubbing off of the frontal and dorsal thoracic setae. It bears a circular green-edged type label on which Austen has written the name in black ink.

Identity. Junior synonym of Exorista (Adenia) rustica (Fallén, 1810: 264 (Tachina)), lectotype 3, Sweden (NR, Stockholm) [examined and herein designated]. The synonymy of medoacus with rustica was first established by Austen (1907: 329) and is here confirmed.

Tachina megaleas Walker, 1849: 739. Holotype 3, England (BMNH).

The holotype is in good condition except for loss of the right fore leg, the left fore tarsus and the apex of the left mid tarsus, and slight damage to the scutum. It bears a circular group added type lebel on which Austen has written the page in block ink.

green-edged type label on which Austen has written the name in black ink.

Identity. Junior synonym of Exorista (Adenia) rustica (Fallén, 1810: 264 (Tachina)), lectotype 3, Sweden NR, (Stockholm) [examined and herein designated]. The synonymy of megaleas with rustica was first established by Austen (1907: 329) and is here confirmed after direct comparison of the 3 primary types and examination of the genitalia.

Tachina menestho Walker, 1849: 783. Holotype ♀, England (BMNH).

The holotype is a greasy teneral specimen, and has lost the left mid leg, the left hind tibia and tarsus, the right antenna and the left arista, but the bristling is mostly still in place. It bears a circular green-edged type label on which Austen has written the name in black ink.

Identity. Syn. n. of *Phorocera obscura* (Fallén, 1810: 283 (Tachina)), lectotype of (by designation of van Emden, 1954: 73, footnote), Sweden (UZI, Lund) [examined by van Emden]. It may usefully be noted here that the paralectotypes of *Phorocera assimilis* (Fallén) are actually specimens of *P. obscura* (Fallén) and that the holotype of menestho has been directly compared with them.

[Tachina mera Walker, 1853. Not Tachinidae, see p. 299].

Tachina mesula Walker, 1849: 737. Holotype J., England (BMNH).

The holotype is in fairly good condition, but has lost the fore tarsi, the right mid tarsus and the antennae, and the wings are slightly frayed. It bears a circular green-edged type label on which Austen has written the name in black ink.

Identity. Junior synonym of **Demoticus plebejus** (Fallén, 1810: 269 (Tachina plebeja)), lectotype &, Sweden (NR, Stockholm) [examined and herein designated]. The synonymy of *mesula* with *plebejus* was first established by Austen (1907: 328) and is here confirmed after direct comparison of the & primary types.

Tachina motor Walker, 1853: 71 (No. 118). Holotype 3, England (BMNH, ex coll. Stephens).

The holotype is in excellent condition except that the mesonotum is crushed in. It bears a printed label '117 motor Walk.'.

Identity. Syn. n. of Lydina aenea (Meigen, 1824: 273 (Tachina)), syntype Q, ? France

or GERMANY (MNHN, Paris) [examined by Herting].

Meigen described aenea from both sexes and from specimens collected by himself (presumably in Germany) and by Baumhauer in Provence. The single Q specimen in Meigen's collection in Paris has syntype status at present; it is probably from Germany but this is not known positively.

Tachina multans Walker, 1853: 82 (No. 143). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853:18) key placement, in which he associated

multans with Phorocera assimilis (Fallén) (No. 144) and with munita (No. 145) (which also = assimilis, see next entry).

Tachina munita Walker, 1853:82 (No. 145). Holotype & England (BMNH, ex coll. Walker).

The holotype is in good condition except for loss of the left mid leg and apex of the right mid tarsus, and for crushing of the eyes. It bears a printed label '144 munita Walk.'.

Identity. Syn. n. of *Phorocera assimilis* (Fallén, 1810: 283 (*Tachina*)), lectotype &, Sweden (NR, Stockholm) [examined and herein designated]. The & holotype of *munita* and the & lectotype of *assimilis* have been directly compared.

[Tachina nana Walker, 1853. Not Tachinidae, see p. 300].

Tachina neglecta Walker, 1853: 25 (No. 15). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853:15) key placement, though it appears probable that neglecta was an Ernestiine; Bezzi (1907:213) listed it as a possible Ernestia species.

Tachina neglecta Walker, 1853: 79 (No. 138). Holotype Q, England (BMNH, ex coll. Walker). Primary homonym of T. neglecta Walker (1853: 25), see T. collecta Walker (replacement name).

The holotype has lost both fore legs and the right mid leg but is otherwise in good condition except for loss of some scutellar and abdominal setae. It bears a printed label '137 neglecta Walk'.

Identity. See entry for Tachina collecta. T. neglecta (2) enters into new synonymy with Phryxe vulgaris (Fallén).

[Tachina nexa Walker, 1853. Not Tachinidae, see p. 300].

Tachina nigrolineata Walker, 1853: 85 (No. 150) (validation of *T. nigrolineata* Stephens, 1829a, b, nomen nudum). Holotype ♀, England (BMNH, ex coll. Stephens).

The holotype has lost all the legs except the right hind leg (of which the tarsal apex is missing) and has the lower part of the head distorted and the upper ptilinum extruded, but is otherwise in good condition; the bristling of head, thorax and abdomen is all excellently preserved. It bears a printed label 'nigrolineata mihi'.

Identity. Valid senior synonym for Pseudoperichaeta insidiosa (Robineau-Desvoidy), new combination Pseudoperichaeta nigrolineata (Walker) comb. n. here established. P. insidiosa (Robineau-Desvoidy, 1863: 338 (Phryxe)), holotype Q, France (MNHN, Paris), here established as a junior synonym (Syn. n.) of P. nigrolineata (Walker, 1853).

Bezzi (1907: 337) placed nigrolineata as a synonym of Tachina (now Exorista) larvarum (L.), an inexplicably erroneous placement.

Tachina nymphidius Walker, 1849: 751. Holotype ♀, England (BMNH).

The holotype is in very good condition except for loss of the left fore tarsus, most of the right tarsi and both aristae. It bears a circular green-edged type label on which Austen has written the name in black ink.

Identity. Junior synonym of Exorista (Adenia) rustica (Fallén, 1810: 264 (Tachina)), lectotype 3, Sweden (NR, Stockholm) [examined and herein designated]. The synonymy of nymphidius with rustica was first established by Austen (1907: 329) and is here confirmed after comparison of types.

Tachina objecta Walker, 1853: 78 (No. 134). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853:18) key placement. The species was described from Stephens's collection.

Tachina olizon Walker, 1849: 753. Holotype ♀, England (BMNH).

The holotype is in good condition except for loss of the right hind leg and some rubbing of the frontal, mesonotal and abdominal vestiture. It bears a circular green-edged type label on which Austen has written the name in black ink.

Identity. Syn. n. of Macquartia praefica (Meigen, 1824: 271 (Tachina)), holotype or

syntype Q, GERMANY (MNHN, Paris) [examined by Herting].

Meigen described only the female of *praefica* but his collection in Paris contains a male and a female specimen. As Meigen (unlike Walker!) was good at sexing Tachinidae it is possible that the male specimen in not an original syntype. The exact type-status of the two specimens is not considered further at present.

Tachina orbilius Walker, 1849: 736. Holotype ♀, England (BMNH).

The holotype has lost both mid legs, the right hind leg, most of the left hind tarsus and the left third antennal segment, but apart from some fraying of the wings is otherwise in good condition. It bears a circular green-edged type label on which Austen has written the name in black ink.

Identity. Syn. n. of Macquartia viridana Robineau-Desvoidy, 1863: 1104, syntypes & Q, France (lost) = Macquartia flavipes sensu authors, not Meigen, 1824 (misidentification). Austen (1907: 328) synonymized orbilius with flavipes, but it is now considered that flavipes sensu Austen and other authors (such as van Emden, 1954: 37) is a misidentification. Bezzi (1907: 209) wrongly placed orbilius as a possible synonym of Micropalpus vulpinus (Fallén).

Tachina pamesos Walker, 1849: 744. Holotype Q, England (BMNH).

The holotype is in very good condition except for loss of the left mid leg, right mid tarsus, and the apices of other tarsi. It bears a circular green-edged type label on which Austen has written the name in black ink.

Identity. Junior synonym of Exorista (Adenia) rustica (Fallén, 1810: 264 (Tachina)), lectotype 3, Sweden (NR, Stockholm) [examined and herein designated]. The synonymy of pamesos with rustica was first established by Austen (1907: 329) and is here confirmed after comparison of types.

Tachina particeps Walker, 1853: 41 (No. 49). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853:16) key placement.

Tachina perpingens Walker, 1853 : 67 (No. 110). Holotype ♀, England (BMNH, ex coll. Walker).

The holotype is in very good condition, but the large pin obscures much of the scutum. It bears a printed label '109 perpingens Walk.'.

Identity. Syn. n. of Elfia cingulata (Robineau-Desvoidy, 1830: 86 (Actia)), holotype [? sex], France (lost).

Tachina pertinens Walker, 1853: 43 (No. 56). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853:16) key, in which the species was grouped alone. The description indicates that the arista was thickened for its whole length and the costal spine strong, but these clues are not sufficiently strong to be sure of the identity. The species was described from Stephens's collection.

[Tachina pertracta Walker, 1853. Not Tachinidae, see p. 300].

Tachina philonis Walker, 1849: 751. Holotype ♀, England (BMNH).

The holotype is in very good condition except for the loss of the right fore leg and some setae of the dorsum.

Identity. Junior synonym of Exorista (Adenia) rustica (Fallén, 1810: 264 (Tachina)), lectotype of, Sweden (NR, Stockholm) [examined and herein designated]. The synonymy of

philonis with rustica was first established by Austen (1907: 329) and is here confirmed after examination of types.

Tachina pitho Walker, 1849: 740. Holotype J, England (BMNH).

The holotype is in good condition except for loss of the fore tibiae and tarsi and some mesonotal setae. It bears a circular green-edged type label on which Austen has written the name in black ink.

Identity. Junior synonym of Exorista (Adenia) rustica (Fallén, 1810: 264 (Tachina)), lectotype 3, Sweden (NR, Stockholm) [examined and herein designated]. The synonymy of pitho with rustica was first established by Austen (1907: 329) and is here confirmed after direct comparison of the 3 primary types and examination of the genitalia.

Tachina quadricincta Walker, 1853: 84 (No. 148) (validation of *T. quadricincta* Stephens, 1829a, b, nomen nudum). Holotype Q, England (BMNH, ex coll. Stephens).

The holotype has lost both fore legs, the left hind leg and the apex of the right mid leg, but is otherwise well preserved; the chaetotaxy is in excellent condition. It bears a printed label 'quadricincta mihi'.

Identity. Syn. n. of *Phryxe nemea* (Meigen, 1824: 340 (*Tachina*)), syntypes 2 Q, Europe [country uncertain] (NM, Vienna) [examined by Herting].

Tachina reclusa Walker, 1853: 32 (No. 29). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853:15) key placement.

Tachina refecta Walker, 1853: 50 (No. 71). Type(s) [? sex], England (lost).

*Identity.* Unknown, the name remains a *nomen dubium*. Nothing reliable can be deduced from the description or from Walker's (1853: 16) key placement.

Tachina reformata Walker, 1853: 63 (No. 99). Holotype Q, England (BMNH, ex coll. Walker).

The holotype has lost both mid legs, the left hind leg and some scuteller setae, but is otherwise in good condition except for some mould. It bears a printed label '98 reformata Walk.'.

Identity. Syn. n. of Lydina aenea (Meigen, 1824: 273 (Tachina)), syntype Q, ? France or Germany (MNHN, Paris) [examined by Herting]. See under T. motor Walker, above, for a further note on the provenance and status of aenea type-material.

Tachina rejecta Walker, 1853: 79 (No. 137). Holotype &, England (BMNH, ex coll. Walker).

The holotype is in poor condition, having lost the head, both fore legs, the right mid tibia and tarsus and the scutellar setae, and having a hole in the scutum. It bears a printed label '136 rejecta Walk'.

Identity. Syn. n. of Periscepsia spathulata (Fallén, 1820 : 7 (Tachina)), holotype of

[not ♀], SWEDEN (UZI, Lund).

This species has been known in Britain as Wagneria lentis (Meigen, 1824) (van Emden, 1954: 40), but lentis is now considered to be a synonym of spathulata (see Herting, 1972: 9). There are no type-specimens of spathulata in Fallén's collection in Stockholm, and the holotype is actually now in Zetterstedt's collection at Lund: the type-locality is Abusa, a small village about 13 km east of Lund in Hällestad parish, and the holotype bears Zetterstedt's label 'T. spathulata Abusa Mus. Fall.' (Zetterstedt correctly gives the sex as A, Fallén's statement of  $\mathcal Q$  in the original description being in error.). Standing in Zetterstedt's collection with the holotype is a second specimen labelled 'T. Spathulata  $\mathcal Q$  a Gyll.' but this is not an original specimen from Fallén's collection and has no type-status.

Tachina retracta Walker, 1853: 80 (No. 139). Holotype 3, England (UM, Oxford, ex coll. Desvignes).

The holotype is in poor condition; the body and wings are very dirty, the thorax and head rather greased, the right fore leg and left fore tarsus are lost and the left arista is lost.

Identity. Syn. n. of Lydella grisescens Robineau-Desvoidy, 1830: 112, type(s) [? sex], France (lost). Verrall (1888: 21) wrongly placed retracta in the genus Masicera Macquart, and this was doubtless the basis for Bezzi's (1907: 284) inclusion of the name in his list of Masicera 'Species dubiae'.

Tachina reventa Walker, 1853: 70 (No. 117). Holotype ♀ [not ♂], England (BMNH, ex coll. Walker).

Walker stated 'Male.' at the start of the English description and continued 'Frontalia widening much in front' (which suggests a male specimen), but only one specimen stood under the name reventa in Walker's collection, and this is female. Walker was notoriously unable to sex Tachinids correctly and despite the discrepancy with the description it is here considered that the existing female specimen must be the holotype; all features in the description other than those alluded to fit the specimen very exactly. It is of interest to note that the citation of a sex in the reventa description is the only instance in which Walker mentioned a sex in any of his British Tachinid descriptions.

The holotype is in fair condition; the head is only weakly attached, the mouthparts partially eaten away, both fore legs and the right third antennal segment are lost, and the vibrissae and frontal setae are rubbed off. It bears a printed label '116 reventa Walk.'.

Identity. Syn. n. of Dufouria chalybeata (Meigen, 1824: 271 (Tachina)), syntypes 1 δ, 1 Ω, Germany (MNHN, Paris) [examined by Herting].

[Tachina senta Walker, 1853. Not Tachinidae, see p. 300].

[Tachina separata Walker, 1853. Not Tachinidae, see p. 300].

Tachina telestho Walker, 1849: 747. Holotype ♀, England (BMNH).

The holotype has the head and thorax greased, the wings frayed, and the mid tarsi lost or damaged, but is otherwise in fairly good condition (apart from a few lost setae). It bears a circular green-edged type label on which Austen has written the name in black ink.

Identity. Junior synonym of Exorista (Adenia) rustica (Fallén, 1810: 264 (Tachina)), lectotype 3, Sweden (NR, Stockholm) [examined and herein designated]. The synonymy of telestho with rustica was first established by Austen (1907: 329) and is here confirmed after examination of types.

Tachina titormus Walker, 1849: 755. Holotype ♀, England (BMNH).

The holotype is in good condition except for loss of the right hind leg and right third antennal segment and some disarrangement of the setae. It bears a circular green-edged type label on which Austen has written the name in black ink.

Identity. Syn. n. of Macquartia dispar (Fallén, 1820: 31 (Tachina)), lectotype Q, Sweden (NR, Stockholm) [examined and herein designated]. The Q primary types of titormus and dispar have been directly compared.

Tachina torta Walker, 1853: 64 (No. 104). Holotype Q, England (BMNH, ex coll. Walker). The holotype has lost the apical half of the left wing and the left mid leg, but is otherwise in good condition except for a few fungal threads. It bears a printed label '103 torta Walk.'.

Identity. Syn. n. of Macquartia praefica (Meigen, 1824: 271 (Tachina)), holotype or syntype Q, Germany (MNHN, Paris) [examined by Herting].

For a note on the status of the type-specimen of *praefica* in Meigen's collection in Paris see *T. olizon* Walker, above.

Tachina tyche Walker, 1849: 738. Holotype &, England (BMNH).

The holotype has lost the left third antennal segment, the apices of the fore tarsi, the right hind tarsus, and some setae but (apart from a break in the basal abdominal tergites) is otherwise in good condition. The genitalia are slide-mounted. It bears a circular green-edged type label on which Austen has written the name in black ink.

Identity. Junior synonym of *Phryxe vulgaris* (Fallén, 1810: 282 (*Tachina*)), lectotype &, Sweden (NR, Stockholm) [examined and herein designated]. The synonymy of tyche with vulgaris was first established by Austen (1907: 329) and is here confirmed after direct comparison of the & primary types, and examination of the genitalia of tyche.

Tachina viridulans Walker, 1853: 29 (No. 23). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium. Nothing reliable can be deduced from the description or from Walker's (1853:15) key placement in which viridulans was grouped alone. Bezzi (1907:408) listed viridulans as a valid species of Macquartia Robineau-Desvoidy, which could possibly be correct; however, no evidence has been found from which Bezzi could possibly have known for certain that this placement was correct, and in the absence of reliable evidence the name is here regarded as a nomen dubium.

# WALKER'S NAMES FOR TACHINIDAE OF UNCERTAIN ORIGIN BUT PROBABLY BRITISH

Walker (1849) described many nominal species of Tachinidae that stood in the BMNH collection without locality data. The types of almost all of these still exist, and it is therefore possible to determine the identities even though the exact provenance is unknown. Some of these nominal species are based upon types that are specimens of well known Palaearctic species, and three of these types could be British (since they belong to species that occur in Britain as well as in continental Europe). All three names are junior synonyms, but it is appropriate to record them here because of the possibility that the type-specimens were collected in Britain. The nominal species concerned are as follows.

Dexia aurinia Walker, 1849: 847. Holotype ♀, [PALAEARCTIC REGION, probably BRITAIN] (BMNH, ex coll. Children).

The holotype has lost both hind legs, the left fore leg, the apices of the remaining tarsi and both third antennal segments; otherwise it is in fair condition except for some damage to the mesonotum. It bears a circular green-edged type label on which Austen has written the name in black ink, and a pencilled label in Austen's writing which reads 'Locality unknown Ex coll. Children. 40.3.30.266.'. Children's collection was comprised mainly of British insects, and a British provenance for *aurinia* is extremely probable.

Identity. Junior synonym of **Dexia vacua** (Fallén, 1816). The synonymy of aurinia with vacua was first established by Austen (1907: 343) and is here confirmed.

Tachina pagasus Walker, 1849 : 750. Holotype♀, [Palaearctic Region, possibly Britain] (BMNH).

The holotype is in fair condition, but the head and thorax are greasy, the left fore leg lost, left mid tarsus and apices of right tarsi lost, and the left arista lost. It bears a circular greenedged label on which Austen has written the name in black ink, and a pencilled label in Austen's writing which reads 'Locality unknown.'.

Identity. Junior synonym of Exorista (Adenia) rustica (Fallén, 1810). The synonymy of pagasus with rustica was first established by Austen (1907: 338) and is here confirmed.

Tachina thyamis Walker, 1849: 771. Holotype of, [Palaearctic Region, probably Britain] (BMNH, ex coll. Children).

The holotype has lost all legs except the right mid leg, and has lost the vibrissae, some scutal setae, the scutellar setae and some abdominal vestiture. It bears a circular greenedged type label on which Austen has written the name in black ink, and a pencilled label in Austen's writing which reads 'Locality unknown. Ex coll. Children. 40.4.3.770.'. Children's

collection was comprised mainly of British insects, and a British provenance for thyamis is extremely probable. It should be noted that Walker (1849) also described a Tachina thyamis on p. 756 of the same work: the two descriptions differ but are very similar, and it seems possible that Walker made two descriptions of the same specimen; no type has been seen for the p. 756 use of the name (though Austen, 1907: 338, reported seeing a specimen that did not fit the description), and it is not clear whether the p. 756 and p. 771 uses of the name thyamis are primary homonyms or whether they are simply different descriptions of the same thing. As thyamis p. 771 is a junior synonym anyway it is of no practical consequence in nomenclature whether homonymy exists or not.

Identity. Junior synonym of Pelatachina tibialis (Fallén, 1810). The synonymy of thyamis (p. 771) with tibialis was first established by Austen (1907: 338) and is here confirmed.

## STEPHENS'S NAMES IN THE BRITISH TACHINIDAE

Stephens (1829a; 1829b), in his Systematic Catalogue and his Nomenclature of British insects, published several new names for Tachinidae that had not previously appeared in print. One of these names was proposed for a new genus (viz. Triarthria Stephens) and is discussed elsewhere (see p. 295), and the others were specific names that Stephens intended to apply to species considered by him to be valid or that he listed simply as synonyms of other names. The newly proposed names in both Catalogue and Nomenclature are nearly always appended with the Latin tag 'mihi', and it had been Stephens's intention to describe the new species for which these names stood in his Illustrations of British Entomology: in the event, however, descriptions were never published of any of the Tachinid species for which Stephens proposed the names, nor I believe for any of the Diptera for which Stephens (op. cit.) provided 'mihi' names. Such specific names are nomina nuda, although some of them were validated by later authors (for example, some of Stephens's specific names were used by Walker and validated by him with descriptions).

The list that follows includes all the names proposed by Stephens for British Tachinidae (excluding the one generic name), and indicates the status of each name and the serial numbering of the name as given in Stephens (1829b). The identities of the various species to which Stephens intended the names to apply have – with few exceptions – been determined by reference to the specimens standing above the names in Stephens's collection. These specimens have now been removed from Stephens's collection and, after appropriate labelling, have been placed in the British Diptera collection of the BMNH. Each such specimen has been labelled in my handwriting, as in the following example: 'Tachina plumbea/Stephens nom. nud./ex coll. Stephens/BRITAIN'.

Stephens intended that most of the species for which he proposed the 'mihi' names should be placed in a new genus distinct from Tachina Meigen, but he never actually described this genus. He referred to it in the Nomenclature (p. 59) as 'N.G. – (Tachina, p. Fall.)', meaning part of Tachina in Fallén's sense, and in the Catalogue (p. 298) as 'Genus 150: (1274).—', meaning the 150th genus of British Diptera (left unnamed). Stephens's specific names listed under the undescribed genus are not, in the literal sense, combined into binomina but they are associated with the generic name Tachina; in the list that follows they have therefore been cited in combination with Tachina.

A few of Stephens's specific names that he cited in Tachinid genera are known (from specimens in his collection) to apply to species that are no longer considered to be Tachinidae. Such names are listed below in square brackets and are considered further on p. 297.

The serial numbers cited in the reference to each name are those given by Stephens (1829b) in the Catalogue. The large number cited first is the serial number given by Stephens to the species in the British insects as a whole, and the small number that follows in brackets is Stephens's serial number for that species in its particular

genus.

Dexia albifrons Stephens, 1829a: 59; 1829b: 302 (No. 8820 (11)). Nomen nudum, without later validation.

Stephens's collection contained three male specimens standing under this name, all of which are *Thelaira nigripes* (Fabricius, 1794); the name *albifrons* Stephens is placeable in the synonymy of this species.

Dexia cinerea Stephens, 1829a: 60; 1829b: 303 (No. 8823 (14)). Nomen nudum, without later validation.

Stephens's collection lacks any specimens standing under this name, and the species for which Stephens intended it remains unknown.

[Leucostoma nervosa. Not Tachinidae, see p. 298].

[Leucostoma venosa (Stephens, not Meigen). Not Tachinidae, see p. 298].

Musca chrysostoma Stephens, 1829b: 303 (No. 8825 (16)). Unavailable name first published as a synonym.

Stephens published this name as 'Mu. chrysostoma. Mus. Marsham' and placed it in synonymy with 'Dexia canina' (now Dexiosoma caninum). Specimens of Dexiosoma caninum (Fabricius, 1781) in Stephens's collection are correctly identified, and the unavailable name chrysostoma is therefore retained in synonymy with caninum.

Musca longipes Stephens, 1829b: 302 (No. 8822 (13)). Unavailable name first published as a synonym.

Stephens published this name as 'Mu. longipes. Mus. Marsham.' and placed it in synonymy with Dexia rustica (Fabricius, 1775). Specimens of Dexia rustica in Stephens's collection are correctly identified, and the unavailable name longipes is therefore retained in synonymy with rustica.

[Musca putris. Not Tachinidae, see p. 298].

Tachina apicalis Stephens, 1829a: 59; 1829b: 298 (No. 8755 (7)). Nomen nudum, without later validation.

Stephens's collection contained one male specimen standing under this name. It is a specimen of *Pales pavida* (Meigen, 1824), and *apicalis* Stephens is placeable in the synonymy of this species.

Tachina bimaculata Stephens, 1829a: 59; 1829b: 298 (No. 8759 (11)). Nomen nudum, without later validation.

Stephens's collection contained one female specimen standing under this name. It is a specimen of *Phryxe nemea* (Meigen, 1824), and *bimaculata* Stephens is placeable in the synonymy of this species.

Tachina cognata Stephens, 1829a: 59; 1829b: 298 (No. 8752(4)). Nomen nudum, without later validation.

Stephens's collection contained one female specimen standing under this name. It is a

specimen of *Epicampocera succincta* (Meigen, 1824), and *cognata* Stephens is placeable in the synonymy of this species.

Tachina dubia Stephens, 1829a: 59; 1829b: 299 (No. 8779 (31)). Nomen nudum, without later validation.

Stephens's collection contained one female specimen standing under this name. It is a specimen of *Lydella grisescens* Robineau-Desvoidy, 1830, and *dubia* Stephens is placeable in the synonymy of this species.

[Tachina nana. Not Tachinidae, see p. 299].

Tachina nigrolineata Stephens, 1829a: 59; 1829b: 299 (No. 8763 (15)). Nomen nudum,

subsequently validated as Tachina nigrolineata Walker, 1853, q.v.

Stephens's collection contained one female specimen standing under this name. This specimen was subsequently described by Walker (1853:85) and is the holotype of *T. nigrolineata* Walker. The specific name is valid with Walker's authorship for the single British species of *Pseudoperichaeta* Brauer & Bergenstamm (see p. 288).

Tachina plumbea Stephens, 1829a: 59; 1829b: 298 (No. 8754 (6)). Nomen nudum, without later validation.

Stephens's collection contained a male and a female specimen standing under this name. Both are specimens of *Pales pavida* (Meigen, 1824), and *plumbea* Stephens is placeable in the synonymy of this species.

Tachina quadricincta Stephens, 1829a: 59; 1829b: 299 (No. 8765 (17)). Nomen nudum, subsequently validated as Tachina quadricincta Walker, 1853, q.v.

Stephens's collection contained one female specimen standing under this name. This specimen was subsequently described by Walker (1853:84) and is the holotype of *T. quadricincta* Walker; the name is a junior synonym of *Phryxe nemea* (Meigen, 1824) (see p. 290).

Tachina testaceipes Stephens, 1829a: 59; 1829b: 299 (No. 8767 (19)). Nomen nudum, without later validation.

Stephens's collection contained one male specimen standing under this name. It is a specimen of *Phryno vetula* (Meigen, 1824), and *testaceipes* Stephens is placeable in the synonymy of this species.

# THE STATUS, IDENTITY AND SYNONYMY OF THE GENERIC NAME TRIARTHRIA STEPHENS

Walker did not propose any generic names in the British Tachinidae, but Stephens published one such name, viz. *Triarthria*. This name appeared in the *Nomenclature of British Insects* (Stephens, 1829a: 59) and again in the *Systematic Catalogue of British Insects* (Stephens, 1829b: 300). The name is marked in Neave's *Nomenclator Zoologicus* (1940, 4: 533) as a nomen nudum because it was not accompanied in either of Stephens's works by a description. However, it is now evident from the *International Code of Zoological Nomenclature* that it is not a nomen nudum but is an available name under the provisions of Article 16(a) (v), since Stephens cited three available specific names in combination with *Triarthria*.

The three species included in *Triarthria* were bicolor Meigen, 1824, spinipennis Meigen, 1824, and albicollis Meigen, 1824, all of which were cited by Stephens (1829b) with their correct original references and were rightly identified (the correctness of Stephens's identifications was confirmed during this work by examination of the

specimens still standing under the three names in the Stephens collection). The name *Triarthria* ('three joints') must without doubt allude to the tripartite nature of the arista in the species which Stephens aggregated in the genus, a character which is extremely striking in *spinipennis*.

In current classification the three species that Stephens placed in *Triarthria* belong to different genera: bicolor is a species of Ceromya Robineau-Desvoidy, 1830 (the specific name applying to the type-species); spinipennis is a species of Bigonicheta Rondani, 1845; and albicollis is a species of Neaera Robineau-Desvoidy, 1830 (the specific name applying to the type-species). Since Triarthria has been for long unrecognized there has not been any type-designation made for it, but whichever of the three included species just cited is fixed as type-species the name will automatically supplant some other generic name (as Triarthria, dating from

1829, has priority over all the other generic names potentially involved).

The European Tachinidae are now under very active study by a number of workers and the systematics is moving gradually from the alpha to the beta stages. At this transitional time many familiar generic names are falling into synonymy as older names are interpreted correctly from detailed study of their types, but there are few if any cases where application to the International Commission on Zoological Nomenclature to preserve a junior synonym is really justified. As a firm believer in the over-riding value of the Law of Priority I am therefore bringing Triarthria into use and am here designating Tachina spinipennis Meigen, 1824, as its type-species. (It should be noted here that Westwood, 1840: 138, mentioned Triarthria and spinipennis but that his mention cannot be construed as a valid type-fixation.)

The effect of this type-designation is to make *Triarthria* a senior synonym for *Bigonicheta* Rondani, the name hitherto applied (either under this spelling or with several variant alternatives) to a familiar genus of earwig parasites occurring in the Palaearctic Region and (by introduction) in the Nearctic Region. In deciding which of the three included species to designate as type-species I have weighed the arguments that would favour one course over another (any designation involves *Triarthria* superseding some other generic name) and am satisfied that the balance is in favour of designating *spinipennis* and thereby sinking *Bigonicheta*. In order that other workers shall appreciate the reasons why *spinipennis* has been chosen

they are here enumerated.

(1) The 'three-jointed' nature of the arista (with its very elongate first and second segments) is exceedingly conspicuous in this species (more so than in the others).

(2) Six correctly identified specimens of *spinipennis* stood in the Stephens collection, as compared to only one each of others.

- (3) Westwood knew of Stephens's genus and mentioned only spinipennis in relation to it.
- (4) Designation of *spinipennis* changes a generic name for the Holarctic area only (whereas designation of *bicolor* would change a name currently in use in all the major Old World regions).

- (5) It eliminates at last the long-persistent muddle that has bedevilled the literature because of emendations and erroneous spellings of *Bigonicheta*.
- (6) Dr B. Herting, specialist on western European Tachinidae, informs me (personal communication) that he too, in the circumstances, is inclined to the fixation of *spinipennis*.

The synonymy of *Triarthria* is now as set out below. In the synonymy confirmed nomenclatorial synonyms are given first, followed by a doubtful synonym and incorrect subsequent spellings (the last in alphabetical order). (The variant spellings of *Bigonicheta* have been investigated with special attention to those cited in Neave's *Nomenclator Zoologicus*: all of the usages traced are considered to have the status of incorrect subsequent spellings under the *Code* and not to be emendations, since they are not *demonstrably* intentional.)

# TRIARTHRIA Stephens, 1829

Triarthria Stephens, 1829a: 59; 1829b: 300. Type-species: Tachina spinipennis Meigen, 1824, by PRESENT DESIGNATION. BRITAIN.

Bigonicheta Rondani, 1845: 32, 34. Type-species: Bigonicheta mariettii Rondani, 1845 [= Tachina setipennis Fallén, 1810], by monotypy. ITALY. Syn. n.

Dira Gistl, 1848: xi. Unnecessary replacement name for Triarthria Stephens (cited as Triarthra, attributed to Meigen in error), preoccupied by Dira Hübner, 1819.

Ramburia Robineau-Desvoidy, 1851: 189. Type-species: Tachina setipennis Fallén, 1810, by monotypy. Sweden, Syn. n.

Trichonevra Lioy, 1864: 1341. Type-species: Tachina spinipennis Meigen, 1824, by monotypy. Germany. Syn. n. [Objective synonym of Triarthria.]

? Osmaea Robineau-Desvoidy, 1830:84. Type-species: Osmaea grisea Robineau-Desvoidy, 1830, by monotypy. France.

Bigonichaeta. Incorrect subsequent spelling of Bigonicheta Rondani.

Bigonochaeta. Incorrect subsequent spelling of Bigonicheta Rondani.

Digonichaeta. Incorrect subsequent spelling of Bigonicheta Rondani.

Digonicheta. Incorrect subsequent spelling of Bigonicheta Rondani., Digonochaeta. Incorrect subsequent spelling of Bigonicheta Rondani.

As the result of the above new synonymy of *Bigonicheta* the following two new combinations are here established:

Triarthria setipennis (Fallén, 1810) comb. n. Triarthria spinipennis (Meigen, 1824) comb. n.

# NAMES OF WALKER AND STEPHENS PURPORTEDLY FOR THE BRITISH TACHINIDAE BUT APPLYING IN OTHER FAMILIES

Walker (1853) described several nominal species in the genus *Tachina* Meigen that are known, or believed without doubt, not to be Tachinidae, the names applying to species of Sarcophagidae or Rhinophoridae. Stephens (1829a; 1829b) published a few names that are *nomina nuda* and purportedly applied to British Tachinidae, but that are now known (from specimens in the Stephens collection) to apply to

Rhinophoridae. As all the names had to be investigated for the present work it has been thought useful to enumerate them here and to clarify their status, even though they are not strictly relevant to the Tachinidae. The names are listed alphabetically under their original binomina.

Leucostoma nervosa Stephens, 1829a: 59; 1829b: 300 (No. 8790 (9), as venosa by lapsus). Nomen nudum, without later validation.

Stephens's collection contained two male specimens standing under this name (nervosa), both of which are Melanomya nana (Meigen, 1826); the name nervosa Stephens is placeable in the synonymy of this species of Rhinophoridae.

Musca putris Stephens, 1829b: 302 (No. 8813 (4)). Unavailable name first published as a synonym.

Stephens published this name as 'Mu. putris. Mus. Marsham' and placed it in synonymy with 'Dexia melania', but Stephens misidentified melania. The true melania Meigen, 1824, is a Tachinid belonging in the genus Medina Robineau-Desvoidy, 1830 (see Herting, 1972: 10) and does not occur in the British fauna, but the specimens (2 &, 1 Q) from Stephens's collection named as melania are actually specimens of Stevenia atramentaria (Meigen, 1824); the name putris Stephens is therefore placeable in the synonymy of this species of Rhinopho-

Tachina caminaria Walker, 1853: 35 (No. 36). Holotype Q, England (BMNH, ex coll. Stephens).

The holotype has lost both hind legs and the left mid leg but is otherwise in very good

condition. It bears a printed label 'caminaria,' from Stephens's collection.

Identity. Syn. n. of Stevenia atramentaria (Meigen, 1824) [Rhinophoridae]. Verrall (1888 pt. 2:4) listed caminaria as possibly a species of Leucostoma Meigen, and Bezzi (1907: 328) wrongly placed it - under the neuter spelling caminarium - as a synonym of Leucostoma simplex (Fallén).

Tachina contempta Walker, 1853: 77 (No. 133). Holotype & England (BMNH, ex coll. Walker).

The holotype is in very good condition except for the loss of the right third antennal segment, the vibrissae and some frontal setae. It bears a printed label '132 contempta Walk.'.

Identity. Syn. n. of Sarcophaga nigriventris Meigen, 1826 [Sarcophagidae].

Tachina expetita Walker, 1853: 36 (No. 38). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium but almost certainly applied in the Rhinophoridae and not in Tachinidae. This is suggested by the description, Walker's (1853:15) key placement, and the fact that he closely associated it with caminaria (= atramentaria) and atramentaria. It is therefore here regarded as a nomen dubium in Rhinophoridae.

Tachina exsecta Walker, 1853: [298]. Replacement name for Tachina intersecta Walker,

1853: 76, primary homonym of Tachina intersecta Walker, 1853: 38.

Walker (1853) described two different species with the name Tachina intersecta, but published the replacement name T. exsecta for the second use of the name intersecta in a table of 'Errata' on an unnumbered page immediately following the last numbered page of the work (p. 297). Type-information for T. exsecta is given under T. intersecta below, q.v.

Identity. Syn. n. of Sarcophaga nigriventris Meigen, 1826 [Sarcophagidae]. Bezzi

(1907: 319) placed exsecta in a list of Phorocera 'Species dubiae'.

Tachina intercepta Walker, 1853: 34 (No. 33). Type(s) [? sex], England (lost).

Identity. Junior synonym of Phyto melanocephala (Meigen, 1824) [Rhinophoridae]. The synonymy of intercepta with melanocephala was first established by Bezzi (1907: 462). I have been unable to discover what evidence Bezzi had for this synonymy, which does not appear to have been given anywhere by Verrall (upon whose lists Bezzi mainly depended for information on Walker's names); however, the description of *intercepta*, for what it is worth, does not noticeably conflict with the characters of *Phyto melanocephala* and I therefore maintain the synonymy as correct.

Tachina interlapsa Walker, 1853: 37 (No. 41). Type(s) [? sex], England (lost).

Identity. Syn. n. of Melanophora roralis (Linnaeus, 1758) [Rhinophoridae]. Bezzi (1907: 457) cited interlapsa as a synonym of Stevenia atramentaria (Meigen) [Rhinophoridae], but I am convinced that this synonymy - which must have been made by guesswork since Verrall had not suggested such a placement in his lists – is wrong. S. atramentaria is one of the largest British Rhinophorids, and Walker's description gave the length of interlapsa as only 1½ lines, this alone contra-indicating Stevenia. However there is really no doubt from description and key placement (Walker, 1853: 16) that interlapsa was a Rhinophorid, and it seems certain that it was the same as Melanophora roralis. Walker's description picks out just those features of the wing colour and venation, shining black non-pollinose body and subcylindrical abdomen that exactly fit roralis (together with the small size). Walker's Latin description reads 'Nigra, gracilis, alis alulisque nigricantibus, venis cubitali et praebrachiali conjunctis, abdomine subcylindrico. Long 11/2; alar. 3 lin.', and the English description elaborates details of the conformation of the wing veins perfectly as in roralis; the petiole is very long ('praebrachial vein . . . joining the cubital at about four-fifths of the length of the latter'), cross-vein m-cu is very remote from the end of vein  $Cu_1$  ('discal transverse vein [i.e. m-cu] straight, obliquely parted from the hind border by about thrice its own length from the border [of the wing]', and m-cu joins vein M unusually far from the bend ('flexure') of M('discal transverse vein . . . more than twice its length from the flexure of the praebrachial'). These characteristics taken in conjunction with the small size cited, the polished black colour and 'wings blackish', justify the positive conclusion that interlapsa is a junior synonym of roralis (syn. n.).

Tachina interlatens Walker, 1853: 35 (No. 37). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium but almost certainly applied in the Rhinophoridae and not in Tachinidae. The description and Walker's (1853:15) key placement appear to indicate a Rhinophorid with petiolate cell  $R_5$ , and it is possible that interlatens was the same as Rhinophora lepida (Meigen). Definite synonymy is not justified, and the name is here regarded as a nomen dubium in Rhinophoridae.

Tachina intersecta Walker, 1853: 76 (No. 130). Holotype 3, England (BMNH, ex coll. Desvignes). Primary homonym of T. intersecta Walker (1853: 38), see T. exsecta Walker

(replacement name).

The holotype has lost the left mid leg, right hind leg, the apex of the left wing and a few setae but is otherwise in good condition; the genitalia are separately mounted on a card. It bears a label reading 'T. Intersecta. Walker's original type from Desvignes' collection' in an unrecognized handwriting, and a rectangular red-bordered label reading 'HOLOTYPE of Tachina intersecta Walker 1853, Ins. Brit. Dipt., 2: 76' in Pont's writing.

Identity. See entry for Tachina exsecta. T. intersecta (2) enters into new synonymy with

Sarcophaga nigriventris Meigen, 1826 [Sarcophagidae].

Tachina mera Walker, 1853: 65 (No. 106). Holotype 3, England (BMNH, ex coll. Walker). The holotype has the right eye crushed, the right leg missing and some fungal threads but is otherwise in good condition. It bears a printed label '105 mera Walk.'.

Identity. Syn. n. of Melanomya nana (Meigen, 1826) [Rhinophoridae].

Tachina nana Stephens, 1829a: 59; 1829b: 299 (No. 8780 (32)). Nomen nudum, subsequently validated as Tachina nana Walker, 1853, q.v. below.

Stephen's collection contained one male specimen standing under this name. This specimen was subsequently described by Walker (1853: 39) and is the holotype of *T. nana* Walker; the name is a junior synonym of *Rhinophora lepida* (Meigen, 1824).

Tachina nana Walker, 1853: 39 (No. 46) (validation of T. nana Stephens, 1829a, b, nomen

nudum). Holotype & England (BMNH, ex coll. Stephens).

The holotype is in good condition except for loss of both mid legs, the left fore tarsus and the tip of the left hind tarsus. It bears a printed label from the Stephens collection reading 'nana mihi'.

Identity. Syn n. of Rhinophora lepida (Meigen, 1824) [Rhinophoridae].

Tachina nexa Walker, 1853: 63 (No. 101). Holotype 3, England (BMNH, ex coll. Walker). The holotype is slightly mouldy and has lost the right hind leg and the apices of the left tarsi but is otherwise in good condition. It bears a printed label '100 nexa Walk.'. Identity. Syn. n. of Phyto melanocephala (Meigen, 1824) [Rhinophoridae].

Tachina pertracta Walker, 1853: 45 (No. 60). Type(s) [? sex], England (lost).

Identity. Unknown, the name remains a nomen dubium in the Sarcophagidae. From the description, which refers to the arista being plumose on the basal half and the mesonotum being trivittate (as in Sarcophaga s.l. and other Sarcophagidae) it appears quite certain that pertracta was a Sarcophagid.

Tachina senta Walker, 1853: 68 (No. 113). Holotype J. England (BMNH, ex coll. Walker). The holotype is in good condition except that the ptilinum is partially extruded, the left fore leg lost, the apices of the mid tarsi lost, and the abdomen slightly dirty. It bears a printed label '112 senta Walk.'.

Identity. Syn. n. of Brachicoma devia (Fallén, 1820) [Sarcophagidae].

Tachina separata Walker, 1853: 67 (No. 111). Holotype Q, England (BMNH, ex coll. Saunders). Junior primary homonym of Tachina separata Meigen, 1824.

The holotype has lost the head and abdomen but the remainder is in very good condition except for loss of the tips of the right fore and mid tarsi. It bears a circular green-edged

type label on which Austen has written the name in black ink.

Identity. Junior synoym of Brachicoma devia (Fallén, 1820) [Sarcophagidae]. The synonymy of separata with devia was first established by Austen (1907: 329) and is here confirmed. Presumably the head and abdomen were present on the type when it was examined by Austen, as he did not comment on them. Although T. separata Walker is a junior primary homonym of T. separata Meigen no new name is required (being obviated by the synonymy of the former with devia).

## LECTOTYPE DESIGNATIONS FOR SOME NOMINAL SPECIES DESCRIBED BY FALLÉN

In order reliably to determine the identities of several of Walker's nominal species it has been necessary to compare the types with those of some nominal species described by Fallén. Most of Fallén's Tachinidae are at present based on syntypic type-series, no lectotypes having yet been designated for most of the nominal species. Some of these type-series are mixed and lectotype designations are therefore desirable. Lectotypes are here designated for ten of Fallén's nominal species, all of which are currently considered valid. In the instances of mixed series the lectotype designations here made maintain existing usage.

It appears to have been Fallén's practice to attach a name label to only one of his specimens, or occasionally to one of each sex, and not to attach any locality data. Consequently most specimens standing in the Fallén collection at Stockholm have no labels at all and their identity is determined by the place labels in the collection. All specimens standing against a particular name have been accepted

as original syntypes unless there is contrary evidence; in some instances only the male sex was originally described and female specimens are therefore excluded from the type-series, and in other instances there are special clues (such as labels linking specimens to literature that post-dates the description) that contra-indicate syntype status.

The ten nominal species for which lectotypes are here designated were all described in *Tachina* Meigen and are listed alphabetically. The paralectotypes that are correctly associated with the lectotypes are differentiated from the misassociated paralectotypes and the actual identities of the latter are cited. As there are no locality data on the specimens the type-locality information has all been derived from the literature. Some original specimens of the species cited stand in the Zetterstedt collection at the Zoological Institute, Lund; these have not been seen as they have no nomenclatorial significance now that the lectotypes in the main Fallén collection at Stockholm are designated. All syntypes seen have been appropriately labelled to show their status and their currently correct binomina.

Tachina assimilis Fallén, 1810: 283. LECTOTYPE & SWEDEN [no other locality data] (NR, Stockholm).

Paralectotypes (misassociated): 8 &, data as lectotype (NR, Stockholm).

The lectotype has lost the left mid and hind legs and has a large hole in the left side of the thorax and abdominal base but is otherwise in good condition. It bears Fallén's faded ink label reading 'T. assimilis 3'.

Fallén originally described only the male, but later (Fallén, 1820: 28) described both sexes. Three females stand in the Fallén collection under the name assimilis but are excluded from the syntype series as the female was not an originally described sex. All eight males standing under assimilis are accepted as original specimens (paralectotypes) as there is no contrary evidence; one has a Fallén label reading 'Tachina assimilis of Fallén' and another has a faded ink number '33'.

The specimen designated as lectotype belongs to a different species from all the other specimens, but its designation is essential in order to preserve the past meaning of assimilis. This species is the type-species of Phorocera Robineau-Desvoidy, 1830, and the designation of lectotype here made ensures that the name assimilis continues to apply to the same species as in the past. All the paralectotypes, and two of the three females that lack type-status, belong to another species that Fallén also described, viz. Phorocera obscura (Fallén, 1810: 283) (lectotype & designated by van Emden and in Lund) and have been labelled accordingly. The third female specimen is true assimilis, conspecific with the lectotype.

Tachina cinerea Fallén, 1810: 268. LECTOTYPE J, SWEDEN: Skåne, Äsperöd [= Esperöd] (NR, Stockholm).

Paralectotype (misassociated): I Q, data as lectotype (NR, Stockholm).

The lectotype is in excellent condition. It bears Fallén's faded ink label reading 'Tachina cinerea & Fall.'.

The  $\mathcal{Q}$  paralectotype is a specimen of *Meigenia* Robineau-Desvoidy; it bears Fallén's label reading 'T. cinerea  $\mathcal{Q}$  var. palp. nig.' and an identification label of Dr D. M. Wood naming it as *Meigenia* sp.

In the original description Fallén cited cinerea as met with on arable lands without specifying a locality, but he later (Fallén, 1820: 20) cited the locality as 'Esperöd'. This is the place where Fallén had his manorial estate (some 20 km north of the town of Simrishamn on the south-east coast of Skåne), on which he collected many of his insects (Persson, personal communication).

There are no syntypes of this species standing in the Zetterstedt collection.

Tachina dispar Fallén, 1820: 31 (No. 64). LECTOTYPE Q, SWEDEN [no other locality data] (NR, Stockholm).

Paralectotype (misassociated): 13, data as lectotype (NR, Stockholm).

The lectotype is in excellent condition except for a small tear on the costal region of the right wing. It bears Fallén's ink label reading 'Tachina dispar of Q an Musca dubitata dist?'.

The Zetterstedt collection in Lund contains two original specimens of dispar from 'Mus Fall.' (i.e. Fallén collection) that are evidently syntypes (paralectotypes) and are on the

same pin; they have not been seen.

Tachina dubia Fallén, 1810: 284. LECTOTYPE J, Sweden: Skåne, Äsperöd [= Esperöd] (NR, Stockholm).

Paralectotype (correctly associated): 1 3, data as lectotype (NR, Stockholm).

The lectotype has lost the right legs, the left mid leg, most of the left hind tarsus and the right third antennal segment, but is otherwise in good condition. It is on a rather slender pin and bears Fallén's faded ink label reading 'T. dubia of Fallén.'. The paralectotype has a faded ink label reading '28'.

Standing with the lectotype and paralectotype in Stockholm are two correctly associated female specimens, one of which has Fallén's label 'T. dubia  $\mathbb{P}$  Fall.'. These females are deemed to have no type-status, as only the male was originally described; Fallén (1820:29) described the female subsequently.

Tachina floralis Fallén, 1810: 287. LECTOTYPE &, Sweden [no other locality data] (NR, Stockholm).

Paralectotypes (correctly associated): 2 \, data as lectotype (NR, Stockholm).

Paralectotypes (misassociated): 2 &, data as lectotype (NR, Stockholm).

The lectotype has lost both fore legs and both mid legs, but is otherwise in good condition except for a few missing setae. It bears Fallén's faded ink label reading 'Tachina floralis & Fallén'. One of the  $\mathbb{Q}$  paralectotypes bears Fallén's label 'Tach. floralis  $\mathbb{Q}$  Fall.' and is in fair condition; the other is unlabelled and lacks the head.

One of the misassociated  $\beta$  paralectotypes, and possibly both, belong to Fallén's 'Var.  $\beta$ ', as one bears an original Fallén label reading 'T. floralis  $\beta$  Fallén'. Both misassociated males are specimens of *Meigenia* Robineau-Desvoidy, and the one with Fallén's label bears Dr D. M. Wood's determination label as *Meigenia mutabilis* (Fallén).

Two paralectotypes (not seen) are in the Zetterstedt collection at Lund.

Tachina nigrita Fallén 1810 : 286. LECTOTYPE J, Sweden: Skåne, Äsperöd [= Esperöd] (NR, Stockholm).

Paralectotypes (correctly associated): 2 Q, data as lectotype (NR, Stockholm).

The lectotype is in excellent condition except for loss of the left fore leg and a tear in the right wing. It bears Fallén's faded ink label réading 'T. nigrita & Fall.'. One of the Q paralectotypes bears Fallén's label 'T. nigrita Q Fall' and the other (which lacks the abdomen) has a faded ink label apparently reading '55'.

There are no syntypes of this species in the Zetterstedt collection.

The type-locality was not cited in the original description but was given later by Fallén (1820: 35) as Esperöd.

Tachina pilipennis Fallén, 1810: 273 (as pilipfnnis by typographical error). LECTOTYPE &, Sweden: Skåne, ? Äsperöd [= Esperöd] (NR, Stockholm).

Paralectotypes (correctly associated): 3 &, 3 \, data as lectotype (NR, Stockholm).

The lectotype is in good condition except for loss of the left mid leg and a little mould. It bears Fallén's faded ink label reading 'Tachina pilipennis & Fallén'. One of the & paralectotypes bears Fallén's label reading 'T. pilipennis & Fallén.' and one of the & paralectotypes has a label in black ink in Zetterstedt's hand reading 'T. crassicornis. Meig. pilipennis Fall &:; another & paralectotype has a label with a '&' sex sign, probably attached by Zetterstedt.

The type-locality was not specified by Fallén, but Zetterstedt (1844:1045) mentions

'Esperöd' as one locality, and this may well be the true type-locality.

One specimen (not seen) is in the Zetterstedt collection at Lund and may be another paralectotype.

Tachina plebeja Fallén, 1810: 269. LECTOTYPE &, SWEDEN [no other locality data] (NR, Stockholm).

Paralectotypes (correctly associated): 1 &, 5 Q, data as lectotype (NR, Stockholm).

The lectotype has the third antennal segments partially eaten out and has lost the aristae but is otherwise in excellent condition. It bears Fallén's faded ink label reading 'Tachina plebeja of Fallén'. One of the Q paralectotypes has Fallén's label 'Tachina plebeja Q Fallén.', and all other paralectotypes are unlabelled.

Standing with the original syntypes is one Q specimen bearing a faded ink label reading 'Bohemann'. This label almost certainly ties this specimen to Fallén's (1820:13) record of a specimen collected by Boheman in 'Smolandia' (= Småland), and indicates that it cannot be an original syntype. It has no type-status.

One original specimen (paralectotype, not seen) is in Zetterstedt's collection in Lund.

Tachina rustica Fallén, 1810 : 264. LECTOTYPE &, Sweden: Skåne, Asperöd [= Esperöd] (NR, Stockholm).

Paralectotypes (correctly associated): 5  $\delta$ , 3 Q, data presumed as lectotype (NR, Stockholm).

Paralectotypes (misassociated): 4 Å, 1 Q, data presumed as lectotype (NR, Stockholm).

The lectotype is in perfect condition and is unlabelled. A headless  $\delta$  paralectotype bears Fallén's faded ink label reading 'Tachina rustica  $\delta$ ' Fallén' and a Q paralectotype bears Fallén's label 'Tachina rustica Q Fall.'; the other paralectotypes are unlabelled and one has the  $\delta$  genitalia extracted and card-mounted.

The misassociated paralectotypes belong to two species: two males are specimens of *Exorista* (*Adenia*) *mimula* (Meigen) (one with genitalia extracted and card-mounted), and two males and a female are specimens of *Exorista* (*Adenia*) *tubulosa* Herting; of the latter the female and one of the males are mounted on the same pin and this male has the genitalia extracted and card-mounted.

Two specimens (not seen) in the Zetterstedt collection at Lund, standing under the name *Tachina larvarum* L., bear original Fallén labels and are probably syntypes (paralectotypes).

Tachina vulgaris Fallén, 1810: 282. LECTOTYPE 3, SWEDEN [no other locality data] (NR, Stockholm).

Paralectotypes: (correctly associated): 5 \$\frac{1}{3}\$, 5 \$\frac{1}{3}\$, data as lectotype (NR, Stockholm).

Paralectotypes (misassociated): 3 3, 1 9, data as lectotype (NR, Stockholm).

The lectotype is in perfect condition and is unlabelled. A  $\beta$  paralectotype bears Fallén's faded ink label reading 'Tachina vulgaris  $\mathcal{Q}$  [sic] Fallén.', one of the  $\mathcal{Q}$  paralectotypes has a Fallén label reading 'Tachina vulgaris  $\mathcal{Q}$  Fallén' and another  $\mathcal{Q}$  has a label reading 'T. vulgaris  $\mathcal{Q}$ ' (probably in Fallén's hand). One of the unlabelled correctly associated  $\beta$  paralectotypes has the genitalia extracted and card-mounted.

The misassociated paralectotypes belong to three species. One 3 bears a Fallén label reading 'Tachina vulgaris 3' Fallén' and is a specimen of *Aplomya confinis* (Fallén); it bears a 1969 determination label of Dr D. M. Wood with the name 'confinis.'. Two unlabelled

males are specimens of *Thelymyia saltuum* (Meigen), and the unlabelled Q is a specimen of *Blondelia nigripes* (Fallén).

One original specimen (not seen) labelled by Fallén is in the Zetterstedt collection in Lund.

## SUMMARY OF NEW SYNONYMS AND NEW COMBINATIONS

The nomenclatural changes established in this paper are summarized below in their appropriate categories. The order is alphabetical and in the synonymies the invalid junior names are cited first. The family is indicated for names that do not apply in the Tachinidae.

# New synonymy in generic names

Bigonicheta Rondani, syn. n. of Triarthria Stephens. Ramburia Robineau-Desvoidy, syn. n. of Triarthria Stephens. Trichonevra Lioy, syn. n. of Triarthria Stephens.

# New synonymy in specific names

Chetina setigena Rondani, syn. n. of Chetina ambivius (Walker).

Phryxe insidiosa Robineau-Desvoidy, syn. n. of Pseudoperichaeta nigrolineata (Walker).

Tachina accidens Walker, syn. n. of Phyllomya volvulus (Fabricius).

Tachina amphiro Walker, syn. n. of Phryxe heraclei (Meigen).

Tachina caminaria Walker, syn. n. of Stevenia atramentaria (Meigen) [Rhinophoridae].

Tachina certans Walker, syn. n. of Timavia amoena (Meigen).

Tachina clymene Walker, syn. n. of Zophomyia temula (Scopoli).

Tachina collecta Walker, syn. n. of Phryxe vulgaris (Fallén).

Tachina commissa Walker, syn. n. of Lypha dubia (Fallén).

Tachina comosa Walker, syn. n. of Lypha dubia (Fallén).

Tachina computa Walker, syn. n. of Campogaster exigua (Meigen).

Tachina constans Walker, syn. n. of Phryxe vulgaris (Fallén).

Tachina contempta Walker, syn. n. of Sarcophaga nigriventris (Meigen) [Sarcophagidae].

Tachina crisia Walker, syn. n. of Eurithia anthophila (Robineau-Desvoidy).

Tachina defecta Walker (1), syn. n. of Billaea irrorata (Meigen).

Tachina delitescens Walker, syn. n. of Timavia amoena (Meigen).

Tachina demota Walker, syn. n. of Lydella grisescens Robineau-Desvoidy.

Tachina denotans Walker, syn. n. of Dinera grisescens (Fallén).

Tachina diniele Walker, syn. n. of Pales pumicata (Meigen).

Tachina discrepans Walker, syn. n. of Lydella grisescens Robineau-Desvoidy.

Tachina distermina Walker, syn. n. of Phryxe vulgaris (Fallén).

Tachina excessa Walker, syn. n. of Dufouria nigrita (Fallén).

Tachina exscensa Walker, syn. n. of Actia pilipennis (Fallén).

Tachina exsecta Walker, syn. n. of Sarcophaga nigriventris (Meigen) [Sarcophagidae].

Tachina immissa Walker, syn. n. of Lydella grisescens Robineau-Desvoidy.

Tachina infensans Walker, syn. n. of Pales pavida (Meigen).

Tachina infixa Walker, syn. n. of Zaira cinerea (Fallén).

Tachina insuscepta Walker, syn. n. of Exorista larvarum (Linnaeus).

Tachina interlapsa Walker, syn. n. of Melanophora roralis (Linnaeus) [Rhinophoridae].

Tachina intersecta Walker (1), syn. n. of Lypha dubia (Fallén).

Tachina intersecta Walker (2), syn. n. of Sarcophaga nigriventris (Meigen) [Sarcophagidae].

Tachina menestho Walker, syn. n. of Phorocera obscura (Fallén).

Tachina mera Walker, syn. n. of Melanomya nana (Meigen) [Rhinophoridae].

Tachina motor Walker, syn, n, of Lydina aenea (Meigen).

Tachina munita Walker, syn. n. of Phorocera assimilis (Fallén).

Tachina nana Walker, syn. n. of Rhinophora lepida (Meigen) [Rhinophoridae].

Tachina neglecta Walker (2), syn. n. of Phryxe vulgaris (Fallén).

Tachina nexa Walker, syn. n. of Phyto melanocephala (Meigen) [Rhinophoridae].

Tachina olizon Walker, syn. n. of Macquartia praefica (Meigen).

Tachina orbilius Walker, syn. n. of Macquartia viridana Robineau-Desvoidy.

Tachina perpingens Walker, syn. n. of Elfia cingulata (Robineau-Desvoidy).

Tachina quadricincta Walker, syn. n. of Phryxe nemea (Meigen).

Tachina reformata Walker, syn. n. of Lydina aenea (Meigen).

Tachina rejecta Walker, syn. n. of Periscepsia spathulata (Fallén).

Tachina retracta Walker, syn. n. of Lydella grisescens Robineau-Desvoidy.

Tachina reventa Walker, syn. n. of Dufouria chalybeata (Meigen).

Tachina senta Walker, syn. n. of Brachicoma devia (Fallén) [Sarcophagidae].

Tachina titormus Walker, syn. n. of Macquartia dispar (Fallén).

Tachina torta Walker, syn. n. of Macquartia praefica (Meigen).

# New combinations

Chetina ambivius (Walker) comb. n. Pseudoperichaeta nigrolineata (Walker) comb. n. Triarthria setipennis (Fallén) comb. n. Triarthria spinipennis (Meigen) comb. n.

#### SUMMARY OF CONFIRMED SYNONYMS

The following previously established synonymies have been confirmed.

Dexia aurinia Walker, junior syn. of Dexia vacua (Fallén).

Tachina admete Walker, junior syn. of Exorista (Adenia) rustica (Fallén).

Tachina broteas Walker, junior syn. of Actia pilipennis (Fallén).

Tachina cerceis Walker, junior syn. of Exorista (Adenia) rustica (Fallén).

Tachina intercepta Walker, junior syn. of Phyto melanocephala (Meigen) [Rhinophoridae].

Tachina internexa Walker, junior syn. of Pales pavida (Meigen).

Tachina intersita Walker, junior syn. of Nemorilla floralis (Fallén).

Tachina medoacus Walker, junior syn. of Exorista (Adenia) rustica (Fallén)

Tachina megaleas Walker, junior syn. of Exorista (Adenia) rustica (Fallén).

Tachina mesula Walker, junior syn. of Demoticus plebejus (Fallén).

Tachina nymphidius Walker, junior syn. of Exorista (Adenia) rustica (Fallén).

Tachina pagasus Walker, junior syn. of Exorista (Adenia) rustica (Fallén).

Tachina pamesos Walker, junior syn. of Exorista (Adenia) rustica (Fallén).

Tachina philonis Walker, junior syn. of Exorista (Adenia) rustica (Fallén).

Tachina pitho Walker, junior syn. of Exorista (Adenia) rustica (Fallén).

Tachina separata Walker, junior syn. of Brachicoma devia (Fallén) [Sarcophagidae].

Tachina telestho Walker, junior syn. of Exorista (Adenia) rustica (Fallén).

Tachina thyamis Walker, junior syn. of Pelatachina tibialis (Fallén).

Tachina tyche Walker, junior syn. of Phryxe vulgaris (Fallén).

#### SUMMARY OF NOMINA DUBIA

The following names remain *nomina dubia* because of inadequate descriptions and loss of types:

Dexia fingens Walker Tachina augens Walker Tachina bijuncta Walker Tachina comitata Walker Tachina confecta Walker Tachina conjuncta Walker Tachina contracta Walker Tachina defecta Walker (2) Tachina demissa Walker Tachina detracta Walker Tachina disjuncta Walker Tachina dispartita Walker Tachina dispecta Walker Tachina dispuncta Walker Tachina distenta Walker Tachina divulsa Walker Tachina domator Walker Tachina effecta Walker Tachina emissa Walker Tachina enodata Walker Tachina enotata Walker Tachina erecta Walker Tachina erogata Walker Tachina evidens Walker Tachina evocata Walker Tachina evoluta Walker Tachina exacta Walker Tachina exagens Walker

Tachina exclusa Walker
Tachina expetita Walker [Rhinophoridae]
Tachina expleta Walker
Tachina fissa Walker
Tachina flexa Walker
Tachina infestans Walker
Tachina inoperta Walker
Tachina inquilina Walker
Tachina insedata Walker
Tachina intacta Walker

Tachina intercedens Walker Tachina interclusa Walker (1) Tachina interclusa Walker (2)

Tachina intaminata Walker

Tachina interlatens Walker [Rhinophoridae]

Tachina intermixta Walker Tachina interna Walker Tachina intracta Walker Tachina involuta Walker Tachina multans Walker Tachina neglecta Walker Tachina objecta Walker Tachina particeps Walker Tachina pertinens Walker

Tachina pertracta Walker [Sarcophagidae]

Tachina reclusa Walker Tachina refecta Walker Tachina viridulans Walker

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